Contents

What are National Occupational Standards(NOS)?

➢ NOS describe what individuals need to do, know and understand in order to carry out a particular job role or function

➢ NOS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction
Qualifications Pack – AI - Chief Data Officer

SECTOR: IT-ITeS

SUB-SECTOR: Future Skills

OCCUPATION: Artificial Intelligence & Big Data Analytics

REFERENCE ID: SSC/Q8119

ALIGNED TO: NCO-2015/252.NIL

Brief Job Role Description: Individuals at this job are part of the executive team. S/he will be responsible for defining the enterprise's data utilization and governance strategy. S/he is able to exploit data assets to create business value.

Personal Attributes: A Chief Data Officer needs to have a clear strategic outlook, strong customer interfacing skills, critical thinking and problem solving ability. S/he needs to have an excellent understanding of the organization, its business and customers.

Job Details	Qualifications Pack Code	SSC/Q8119		
	Job Role	**AI - Chief Data Officer** This job role is applicable in both national and international scenarios		
	Credits (NSQF)	TBD	**Version number**	1.0
	Sector	IT-ITeS	**Drafted on**	29/08/2018
	Sub-sector	Future Skills	**Last reviewed on**	17/10/2018
	Occupation	Artificial Intelligence & Big Data Analytics	**Next review date**	31/12/2019
	NSQC Clearance on	19/12/2018		

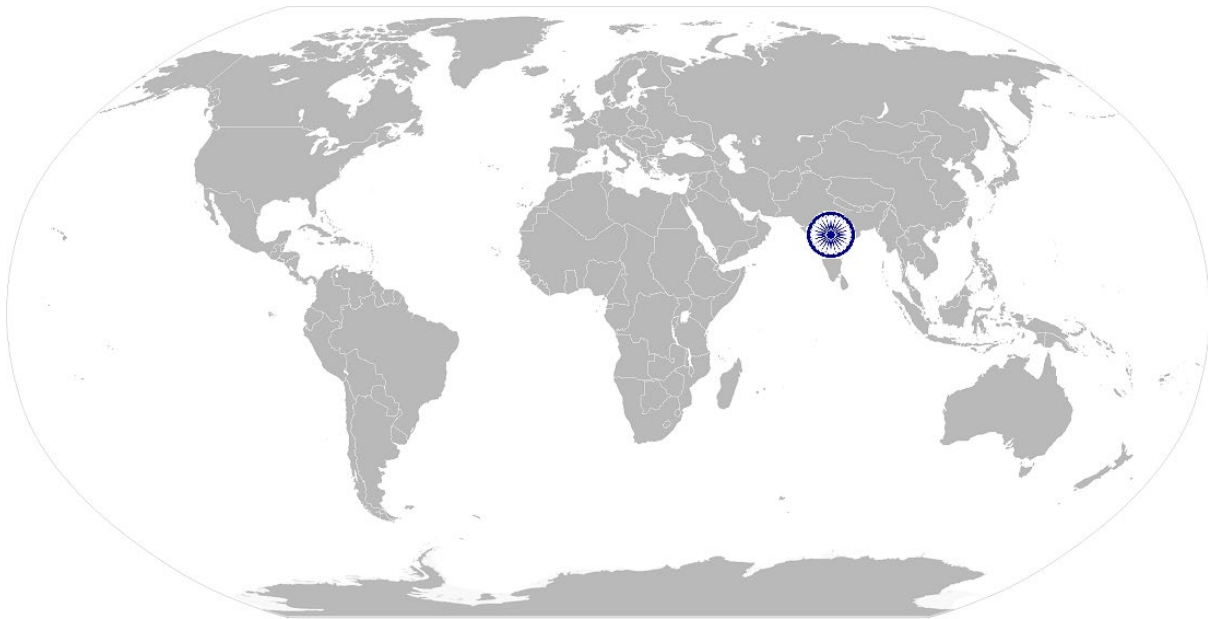| Job Role	AI - Chief Data Officer (Chief Analytics Officer)
Role Description	Individuals at this job are part of the executive team. S/he will be responsible for defining the enterprise's data utilization and governance strategy. S/he is able to exploit data assets to create business value.
NSQF Level	9
Minimum Educational Qualifications* **Maximum Educational Qualifications***	Bachelor's Degree in Engineering / Technology / Statistics / Mathematics / Computer Science Not Applicable
Prerequisite License or Training (Mandatory)	Not Applicable
Minimum Job Entry Age	21 years (Recommended)
Experience	10+ years (Recommended)
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. SSC/N8126 Define a strategy for data management, governance and utilization 2. SSC/N9001 Manage your work to meet requirements 3. SSC/N9002 Work effectively with colleagues 4. SSC/N9004 Provide data/information in standard formats 5. SSC/N9005 Develop your knowledge, skills and competence 6. SSC/N9006 Build and maintain relationships at the workplace 7. SSC/N9008 Define a clear strategic outlook 8. SSC/N9009 Empower the team 9. SSC/N9010 Convince others to take appropriate action in different situations

| Performance Criteria	As described in the relevant NOS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job Role	Job role defines a unique set of tasks that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OSs, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding	Knowledge and understanding are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual need to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.

Definitions

Keywords /Terms	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
IT-ITeS	Information Technology – Information Technology enabled Services
SPD	Software Product Development
ERD	Engineering and R&D
ITS	Information Technology Services
BPM	Business Process Management
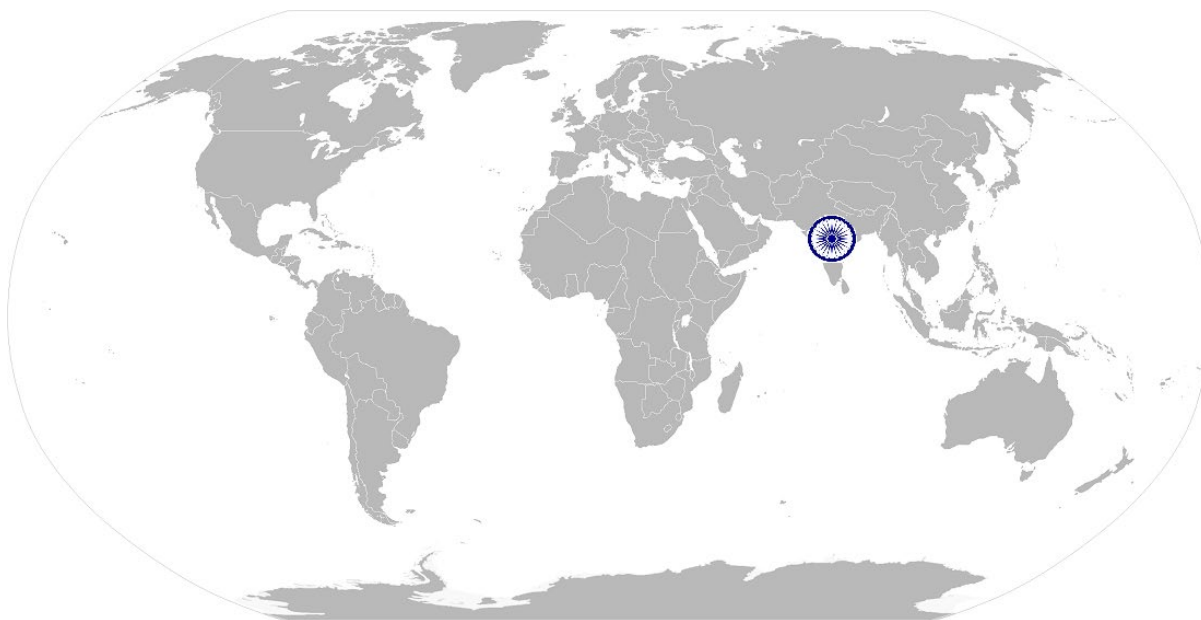
Acronyms

National Occupational Standard

<u>**Overview**</u>

This unit is about defining the strategy and driving outcomes for data management, governance and utilization for the organization.

SSC/N8126   Define the strategy and drive outcomes for data management, governance and utilization

Unit Code	SSC/N8126
Unit Title (Task)	Define the strategy and drive outcomes for data management, governance and utilization
Description	This unit is about defining the strategy and driving outcomes for data management, governance and utilization for the organization.
NSQF Level	9
Scope	This unit/task covers the following: • Define data assets • Define data strategy • Communicate data strategy Timelines: 3 years, 5 years

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Define data assets	To be competent, the user/individual on the job must be able to: PC1. evaluate current and future business and IT requirements PC2. evaluate data assets found internally in the organization and the external data ecosystem
Define data strategy	To be competent, the user/individual on the job must be able to: PC3. define a strategy to leverage data to unify business and IT requirements for an appropriate duration PC4. define a governance model including compliance, change management procedures, workflow guidance and key organizational structures PC5. define standards and processes for data management, metadata management and data stewardship PC6. define stage-gated success metrics for the data strategy
Communicate data strategy	To be competent, the user/individual on the job must be able to: PC7. create documentation on the data strategy PC8. communicate the vision and strategic principles to appropriate people PC9. work with different teams to drive outcomes based on the defined data strategy

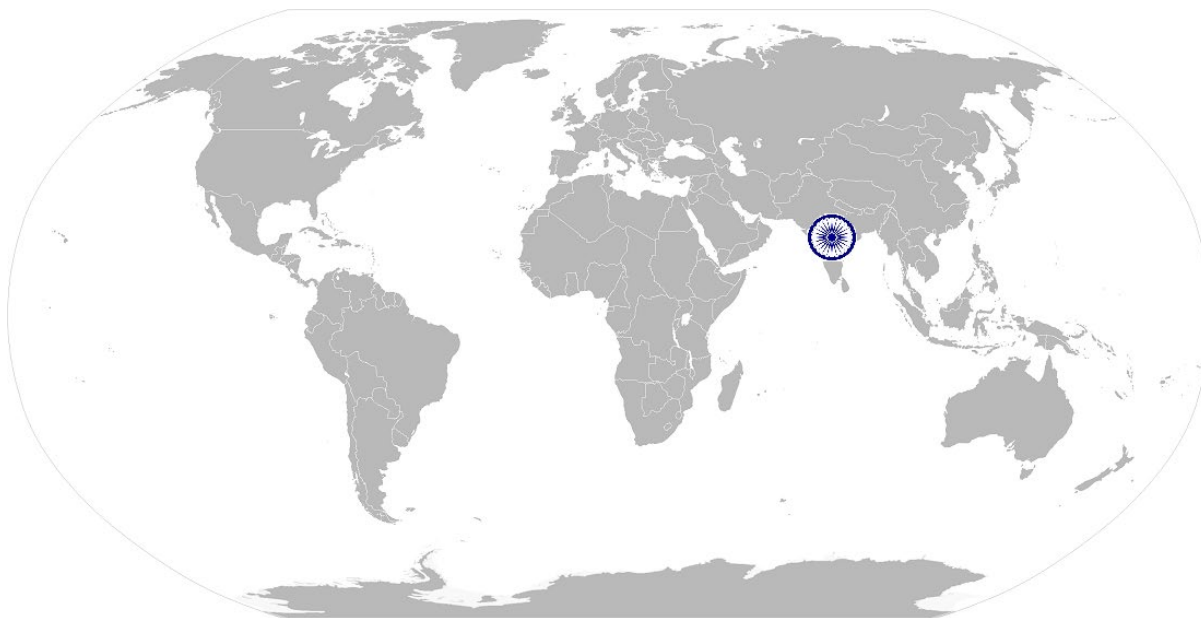| **Knowledge and Understanding (K)**	
A. Organizational Context (Knowledge of the company/	The user/individual on the job needs to know and understand: KA1. organizational policies, procedures and guidelines which relate to defining a data strategy

National Occupational Standard

SSC/N8126   Define the strategy and drive outcomes for data management, governance and utilization

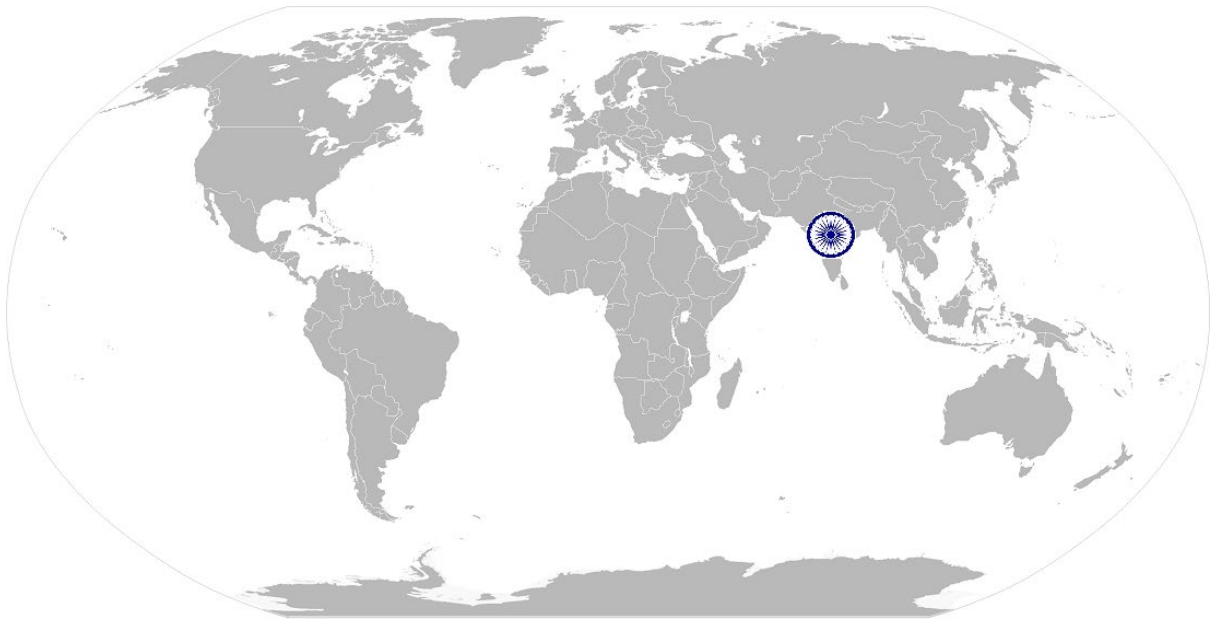|	
organization and its processes)	KA2. different data sources and how to access documents and information from data sources
	KA3. organizational policies and procedures for sharing data
	KA4. organizational policies and procedures for documenting the data strategy
	KA5. who to involve when defining the data strategy
	KA6. the range of standard templates and tools available and how to use them
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different business and IT requirements KB2. different current and future data assets KB3. how to evaluate technical and business capabilities of data assets KB4. how to define data strategies for particular timelines KB5. different governance models to implement the data strategy KB6. different standards for data management, metadata management and data stewardship KB7. different success metrics for data strategies KB8. different cloud or distributed computing platforms such as AWS, Azure, Hadoop, their affiliated services and how to use these
Skills (S)	
A. Core / Generic Skills	**Decision Making** The user/ individual on the job needs to know and understand how to: SA1. follow rule-based decision-making processes SA2. make decisions on suitable courses **Problem Solving** The user/ individual on the job needs to know and understand how to: SA3. apply problem-solving approaches in different situations **Critical Thinking** The user/ individual on the job needs to know and understand how to: SA4. apply balanced judgments to different situations

NOS Version Control

NOS Code	SSC/N8126		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019

National Occupational Standard

<u>**Overview**</u>

This unit is about planning and organizing your work in order to complete it to the required standards on time.

National Occupational Standard

Unit Code	SSC/N9001
Unit Title (Task)	Manage your work to meet requirements
Description	This unit is about planning and organizing your work in order to complete it to the required standards on time.
NSQF Level	6
Scope	This unit/task covers the following: • Utilize resources • Ensure compliance Work requirements: activities, deliverables, quantity, standards, timing Resources: equipment, materials, information

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Utilize resources	To be competent, the individual working on the job must be able to: PC1. establish and agree your work requirements with appropriate people PC2. keep your immediate work area clean and tidy PC3. utilize your time effectively PC4. use resources correctly and efficiently PC5. treat confidential information correctly
Ensure compliance	To be competent, the individual working on the job must be able to: PC6. work in line with your organization's policies and procedures PC7. work within the limits of your job role PC8. obtain guidance from appropriate people, where necessary PC9. ensure your work meets the agreed requirement

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's policies, procedures and priorities for your area of work and your role and responsibilities in carrying out your work KA2. limits of your responsibilities and when to involve others KA3. your specific work requirements and who these must be agreed with KA4. the importance of having a tidy work area and how to do this KA5. how to prioritize your workload according to urgency and importance and the benefits of this

SSC/N9001   **Manage your work to meet requirements**

	KA6. your organization's policies and procedures for dealing with confidential information and the importance of complying with these
	KA7. the purpose of keeping others updated with the progress of your work
	KA8. who to obtain guidance from and the typical circumstances when this may be required
	KA9. the purpose and value of being flexible and adapting work plans to reflect change
B. Technical Knowledge	You need to know and understand: KB1. the importance of completing work accurately and how to do this KB2. appropriate timescales for completing your work and the implications of not meeting these for you and the organization KB3. resources needed for your work and how to obtain and use these KB4. how to store and retrieve information KB5. how to identify and refer anomalies in data KB6. how to use information technology effectively to input and/or extract data accurately KB7. how to keep up to date with changes, procedures and practices in your role
Skills (S)	
A. Core / Generic Skills	**Writing Skills** SA1. complete accurate well written work with attention to detail **Reading Skills** SA2. follow instructions, guidelines, procedures, rules and service level agreements **Listening and Speaking Skills** SA3. ask for clarification and advice from appropriate people SA4. listen effectively and orally communicate information accurately **Decision Making** SA5. make a decision on a suitable course of action **Plan and Organize** SA6. plan and organize your own work to achieve targets and deadlines SA7. provide accurate reports to line managers in a timely manner as required **Customer Centricity** SA8. check that your own and/or your peers' work meets customer requirements

SA9.   deliver consistent and reliable service to customers

Problem Solving

SA10.   refer anomalies to the supervisor

SA11.   seek clarification on problems from others

Analytical Thinking

SA12.   analyze data and activities

SA13.   pass on relevant information to others

Critical Thinking

SA14.   apply balanced judgments to different situations

Attention to Detail

SA15.   check your work is complete and free from errors

SA16.   get your work checked by others

Team Working

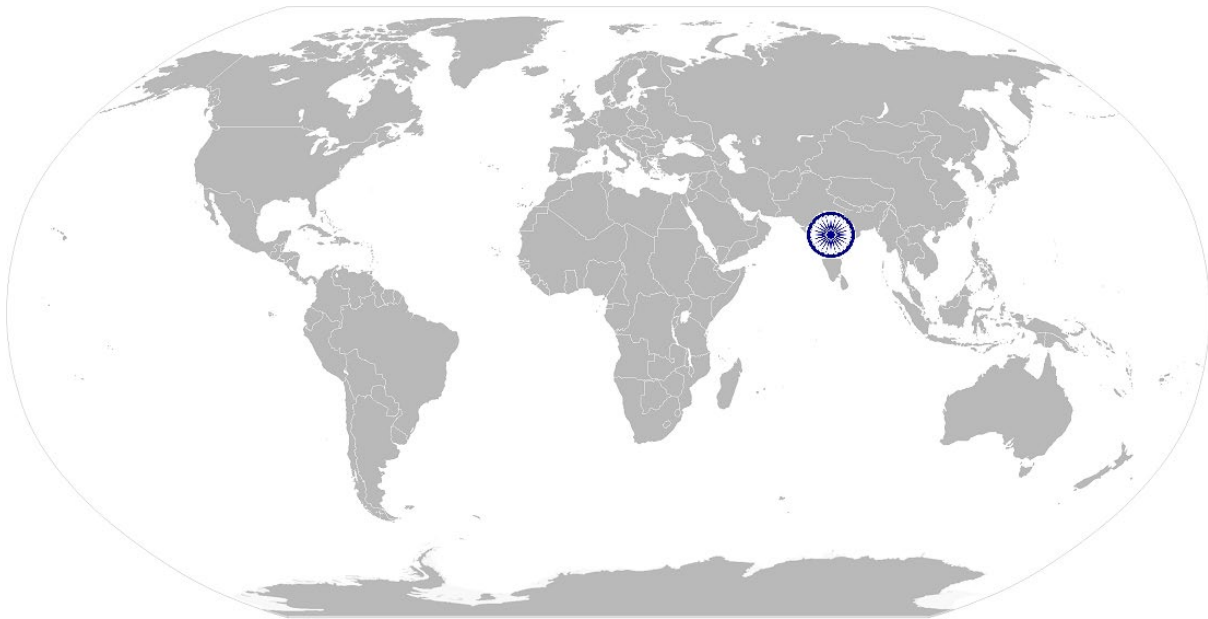SA17.   work effectively in a team environment

NOS Version Control

NOS Code	SSC/N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019

National Occupational Standard

<u>**Overview**</u>

This unit is about working effectively with colleagues, either in your own work group or in other work groups within your organization.

National Occupational Standard

Unit Code	SSC/N9002
Unit Title (Task)	**Work effectively with colleagues**
Description	This unit is about working effectively with colleagues, either in your own work group or in other work groups within your organization.
NSQF Level	6
Scope	This unit/task covers the following: • Communicate with colleagues • Show respect Communicate: face-to-face, by telephone, in writing

Performance Criteria (PC) w.r.t. the Scope

Element	Performance Criteria
Communicate with colleagues	To be competent, the individual working on the job must be able to: PC1. communicate with colleagues clearly, concisely and accurately PC2. work with colleagues to integrate your work effectively with them PC3. pass on essential information to colleagues in line with organizational requirements
Show respect	To be competent, the individual working on the job must be able to: PC4. work in ways that show respect for colleagues PC5. carry out commitments you have made to colleagues PC6. let colleagues know in good time if you cannot carry out your commitments, explaining the reasons PC7. identify any problems you have working with colleagues and take the initiative to solve these problems PC8. follow the organization's policies and procedures for working with colleagues

Knowledge and Understanding (K)

| A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's policies and procedures for working with colleagues and your role and responsibilities in relation to this KA2. the importance of effective communication and establishing good working relationships with colleagues KA3. different methods of communication and the circumstances in which it is appropriate to use these

SSC/N9002   **Work effectively with colleagues**

	KA4. benefits of developing productive working relationships with colleagues KA5. the importance of creating an environment of trust and mutual respect in an environment where you have no authority over those you are working with KA6. where you do not meet your commitments, the implications this will have on individuals and the organization
B. Technical Knowledge	You need to know and understand: KB1. different types of information that colleagues might need and the importance of providing this information when it is required KB2. the importance of understanding problems from your colleague's perspective and how to provide support, where necessary, to resolve these KB3. how to identify and refer anomalies in data KB4. how to help reach agreements with colleagues KB5. how to keep up to date with changes, procedures and practices in your role

Skills (S)	
A. Core / Generic Skills	**Writing Skills** SA1. complete accurate well written work with attention to detail SA2. communicate effectively with colleagues in writing **Reading Skills** SA3. follow instructions, guidelines, procedures, rules and service level agreements **Listening and Speaking Skills** SA4. ask for clarification and advice from appropriate people SA5. listen effectively and orally communicate information accurately **Decision Making** SA6. make a decision on a suitable course of action **Plan and Organize** SA7. plan and organize your own work to achieve targets and deadlines **Customer Centricity** SA8. check that your own and/or your peers' work meets customer requirements SA9. deliver consistent and reliable service to customers

Problem Solving

SA10. apply problem solving approaches in different situations

Critical Thinking

SA11.   apply balanced judgments to different situations

Attention to Detail

SA12.   check your work is complete and free from errors

SA13.   get your work checked by others

Team Working

SA14.   work effectively in a team environment

SA15.   work effectively with colleagues and other teams

SA16.   treat other cultures with respect
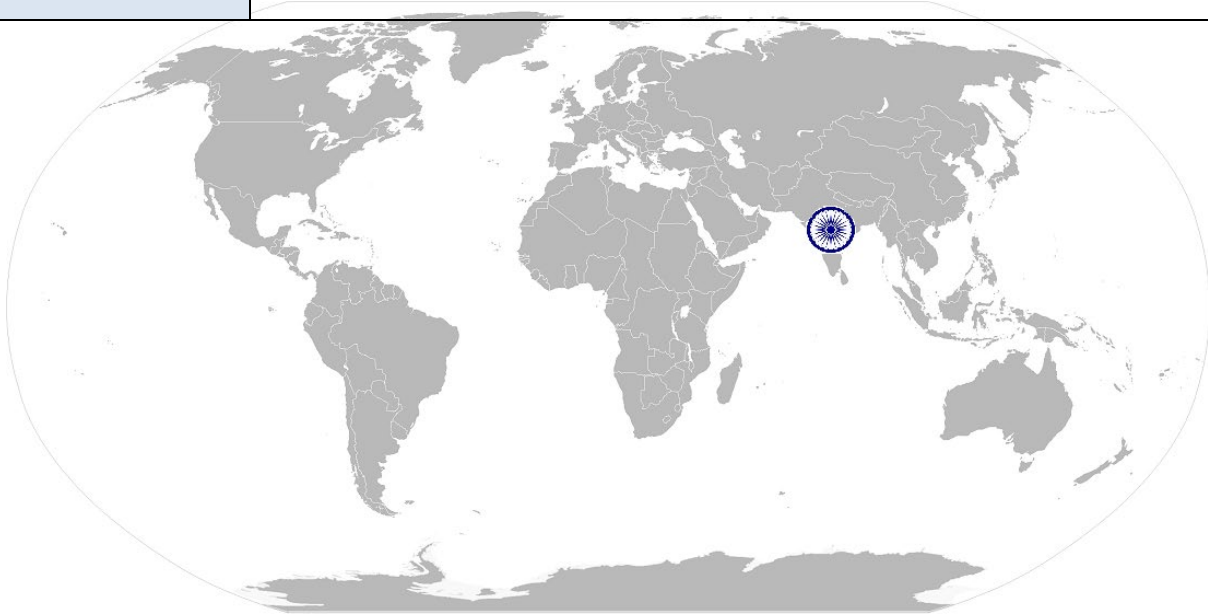
NOS Version Control

NOS Code	SSC/N9002		
Credits (NSQF)	TBD	**Version number**	1.0
Industry	IT-ITeS	**Drafted on**	29/08/2018
Industry Sub-sector	Future Skills	**Last reviewed on**	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	**Next review date**	31/12/2019
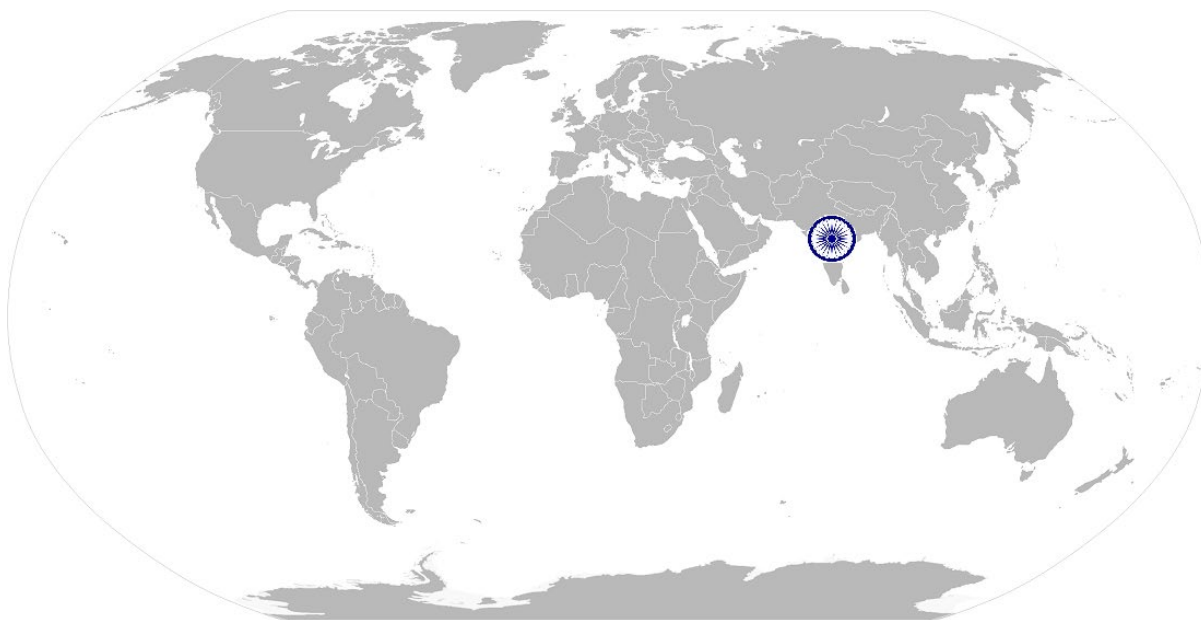
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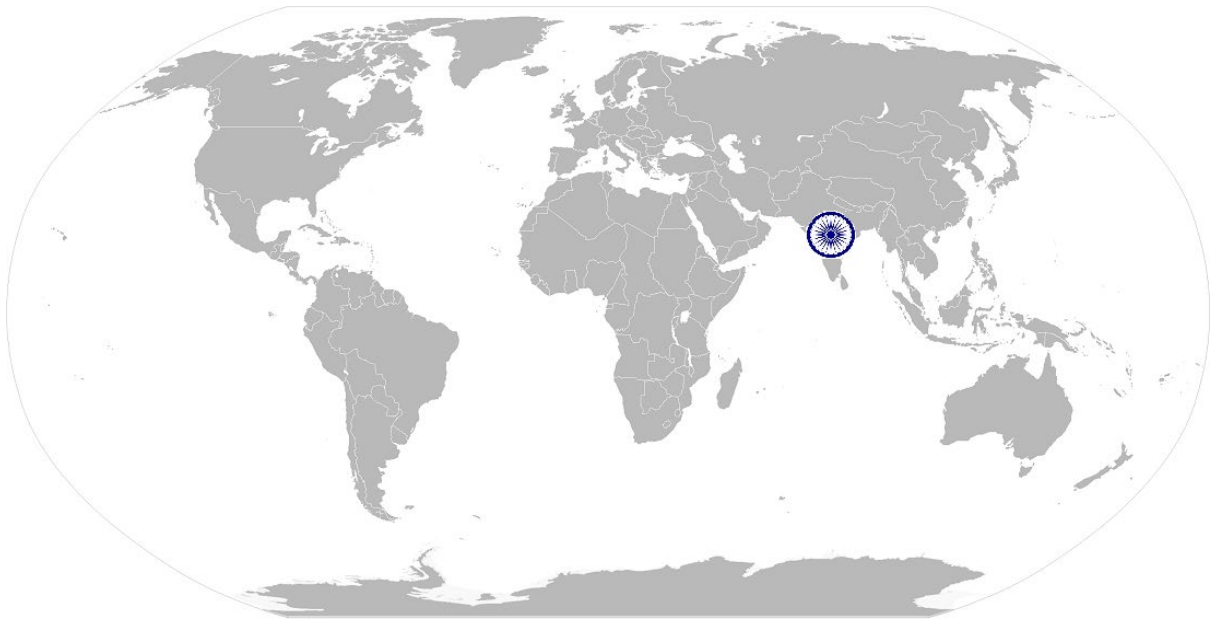
Overview

This unit is about providing specified data/information related to your work in templates or other standard formats.

SSC/N9004   **Provide data / information in standard formats**

Unit Code	SSC/N9004
Unit Title (Task)	**Provide data/information in standard formats**
Description	This unit is about providing specified data/information related to your work in templates or other standard formats.
NSQF Level	6
Scope	This unit/task covers the following: • Obtain information • Analyze and report information Data/Information: quantitative, qualitative Sources: within your organization, outside your organization Formats: paper-based, electronic

National Occupational Standard *(sidebar)*

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Obtain information	To be competent, the individual working on the job must be able to: PC1. establish and agree with appropriate people the data/information you need to provide, the formats in which you need to provide it, and when you need to provide it PC2. obtain the data/information from reliable sources PC3. check that the data/information is accurate, complete and up-to-date PC4. obtain advice or guidance from appropriate people where there are problems with the data/information
Analyze and report information	To be competent, the individual working on the job must be able to: PC5. carry out rule-based analysis of the data/information, if required PC6. insert the data/information into the agreed formats PC7. check the accuracy of your work, involving colleagues where required PC8. report any unresolved anomalies in the data/information to appropriate people PC9. provide complete, accurate and up-to-date data/information to the appropriate people in the required formats on time
Knowledge and Understanding (K)	
A. Organizational	You need to know and understand:

SSC/N9004   **Provide data / information in standard formats**

Context (Knowledge of the company/ organization and its processes)	KA1. your organization's procedures and guidelines for providing data/information in standard formats and your role and responsibilities in relation to this KA2. the knowledge management culture of your organization KA3. your organization's policies and procedures for recording and sharing information and the importance of complying with these KA4. the importance of validating data/information before use and how to do this KA5. procedures for updating data in appropriate formats and with proper validation KA6. the purpose of the CRM database KA7. how to use the CRM database to record and extract information KA8. the importance of having your data/information reviewed by others KA9. the scope of any data/information requirements including the level of detail required KA10. the importance of keeping within the scope of work and adhering to timescales
B. Technical Knowledge	You need to know and understand: KB1. data/information you may need to provide including the sources and how to do this KB2. templates and formats used for data/information including their purpose and how to use these KB3. different techniques used to obtain data/information and how to apply these KB4. how to carry out rule-based analysis on the data/information KB5. typical anomalies that may occur in data/information KB6. who to go to in the event of inaccurate data/information and how to report this KB7. how to use information technology effectively to input and/or extract data accurately KB8. how to validate and update data KB9. how to identify and refer anomalies in data KB10. how to store and retrieve information KB11. how to share information using standard formats and templates KB12. how to keep up to date with changes, procedures and practices in your role
Skills (S)	

SSC/N9004   **Provide data / information in standard formats**

A. Core / Generic Skills	**Writing Skills** SA1. complete accurate well written work with attention to detail **Reading Skills** SA2. follow instructions, guidelines, procedures, rules and service level agreements **Listening and Speaking Skills** SA3. listen effectively and orally communicate information accurately **Decision Making** SA4. follow rule-based decision making processes SA5. make a decision on a suitable course of action **Plan and Organize** SA6. plan and organize your own work to achieve targets and deadlines **Customer Centricity** SA7. check that your own and/or your peers' work meets customer requirements SA8. meet and exceed customer expectations **Problem Solving** SA9. apply problem solving approaches in different situations **Analytical Thinking** SA10. configure data and disseminate relevant information to others **Critical Thinking** SA11. apply balanced judgments to different situations **Attention to Detail** SA12. check your work is complete and free from errors SA13. get your work checked by others **Team Working** SA14. work effectively in a team environment

NOS Version Control

NOS Code	SSC/N9004		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019
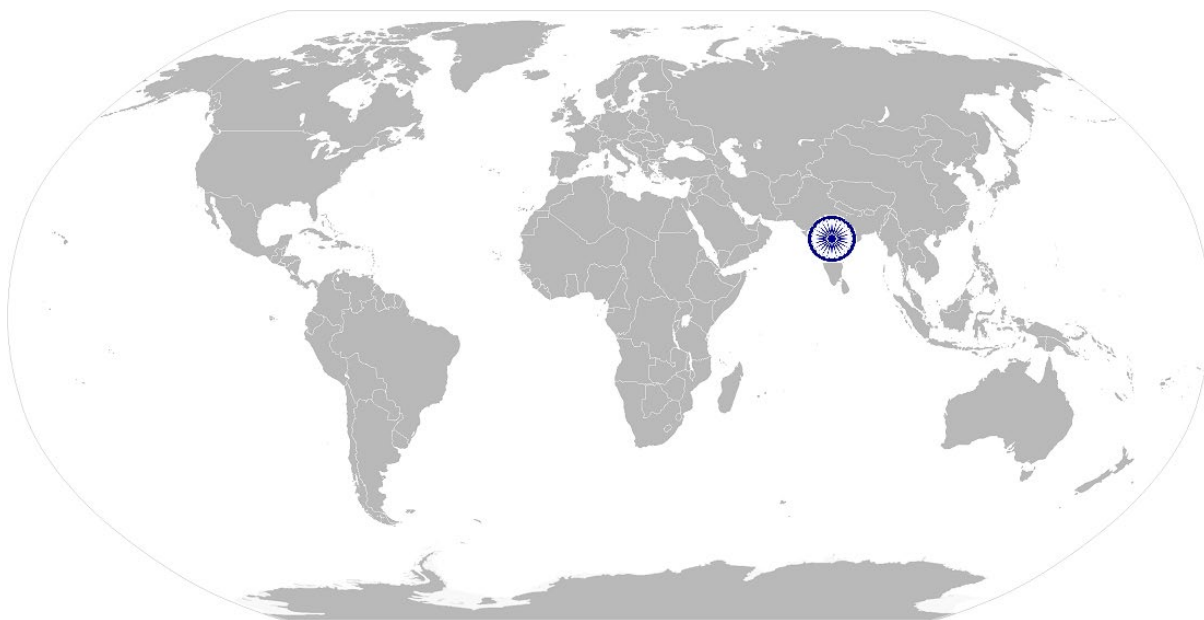
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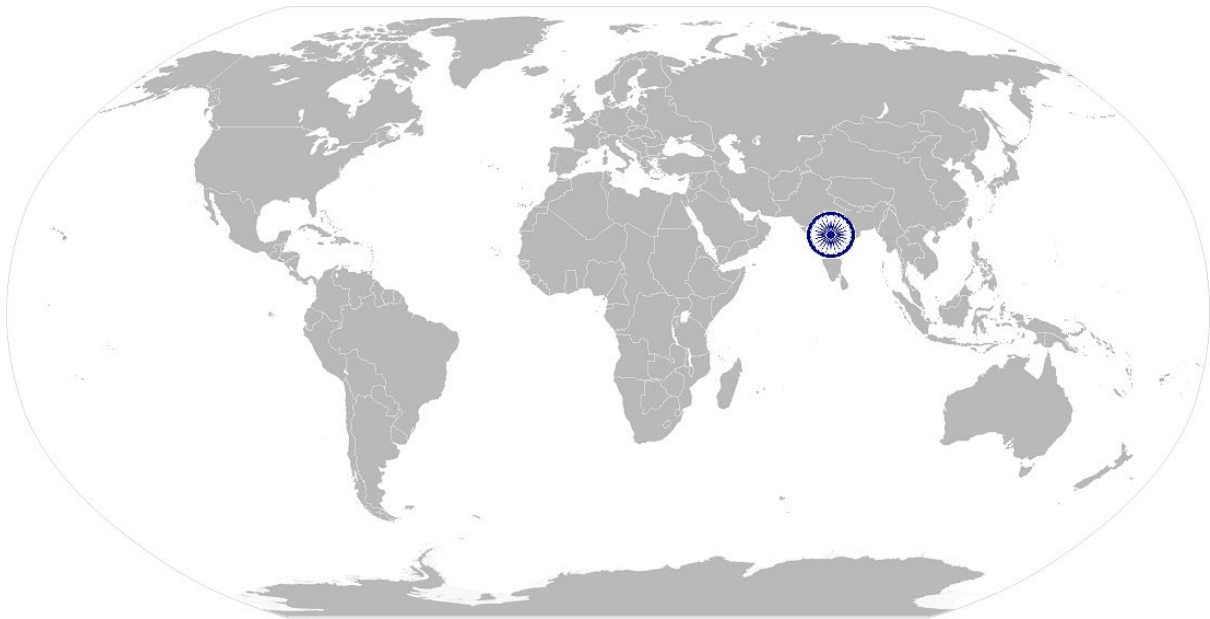
Overview

This unit is about taking action to ensure you have the knowledge and skills you need to perform competently in your current job role and to take on new responsibilities, where required.

SSC/N9005 **Develop your knowledge, skills and competence**

Unit Code	SSC/N9005
Unit Title (Task)	**Develop your knowledge, skills and competence**
Description	This unit is about taking action to ensure you have the knowledge and skills you need to perform competently in your current job role and to take on new responsibilities, where required. Competence is defined as: the application of knowledge and skills to perform to the standards required.
NSQF Level	6
Scope	This unit/task covers the following: • Develop knowledge • Apply knowledge Learning and Development Activities: formal education and training programs, leading to certification, non-formal activities (such as private study, learning from colleagues, project work), designed to meet learning and development objectives but without certification Appropriate Action: undertaking further learning and development activities, finding further opportunities to apply your knowledge and skills

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Develop knowledge	To be competent, the individual working on the job must be able to: PC1. obtain advice and guidance from appropriate people to develop your knowledge, skills and competence PC2. identify accurately the knowledge and skills you need for your job role PC3. identify accurately your current level of knowledge, skills and competence and any learning and development needs PC4. agree with appropriate people a plan of learning and development activities to address your learning needs PC5. undertake learning and development activities in line with your plan
Apply knowledge	To be competent, the individual working on the job must be able to: PC6. apply your new knowledge and skills in the workplace, under supervision PC7. obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them

SSC/N9005   **Develop your knowledge, skills and competence**

	PC8. review your knowledge, skills and competence regularly and take appropriate action
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's procedures and guidelines for developing your knowledge, skills and competence and your role and responsibilities in relation to this KA2. the importance of developing your knowledge, skills and competence to you and your organization KA3. different methods used by your organization to review skills and knowledge including: • training need analysis • skills need analysis • performance appraisals KA4. how to review your knowledge and skills against your job role using different methods and analysis KA5. different types of learning and development activities available for your job role and how to access these KA6. how to produce a plan to address your learning and development needs, who to agree it with and the importance of undertaking the planned activities KA7. different types of support available to help you plan and undertake learning and development activities and how to access these KA8. why it is important to maintain records of your learning and development KA9. methods of obtaining and accepting feedback from appropriate people on your knowledge skills and competence KA10. how to use feedback to develop in your job role
B. Technical Knowledge	You need to know and understand: KB1. the knowledge and skills required in your job role KB2. your current learning and development needs in relation to your job role KB3. different types of learning styles and methods including those that help you learn best KB4. the importance of taking responsibility for your own learning and development KB5. to the importance of learning and practicing new concepts, theory and how to apply these in the work environment or on samples

SSC/N9005   **Develop your knowledge, skills and competence**

	KB6. how to explore sample problems and apply solutions
	KB7. how to use information technology effectively to input and/or extract data accurately
	KB8. how to agree objectives and work requirements
	KB9. how to keep up to date with changes, procedures and practices in your role
Skills (S)	
A. Core / Generic Skills	**Writing Skills** SA1. complete accurate well written work with attention to detail **Reading Skills** SA2. follow instructions, guidelines, procedures, rules and service level agreements **Listening and Speaking Skills** SA3. ask for clarification and advice from line managers **Decision Making** SA4. make a decision on a suitable course of action **Plan and Organize** SA5. plan and organize your own work to achieve targets and deadlines **Customer Centricity** SA6. check that your own and/or your peers' work meets customer requirements **Problem Solving** SA7. refer anomalies to the supervisor **Analytical Thinking** SA8. analyze data and activities **Critical Thinking** SA9. apply balanced judgments to different situations **Attention to Detail** SA10. check your work is complete and free from errors SA11. get your work checked by others **Team Working** SA12. work effectively in a team environment

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NOS Version Control

NOS Code	SSC/N9005		
Credits (NSQF)	TBD	**Version number**	1.0
Industry	IT-ITeS	**Drafted on**	29/08/2018
Industry Sub-sector	Future Skills	**Last reviewed on**	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	**Next review date**	31/12/2019
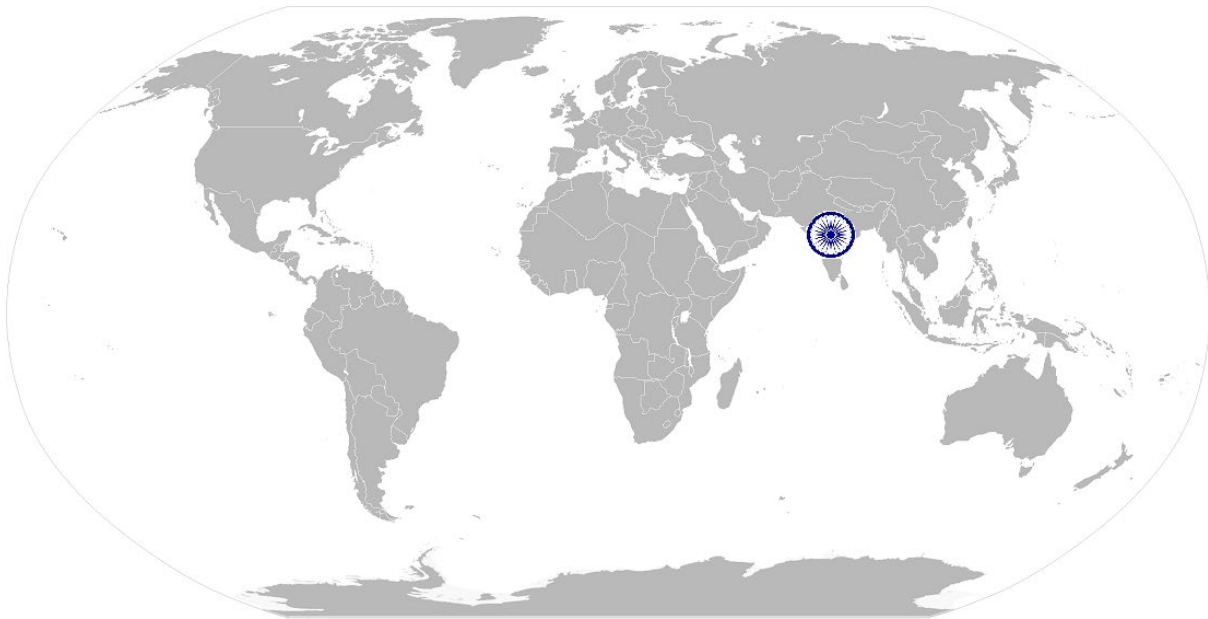
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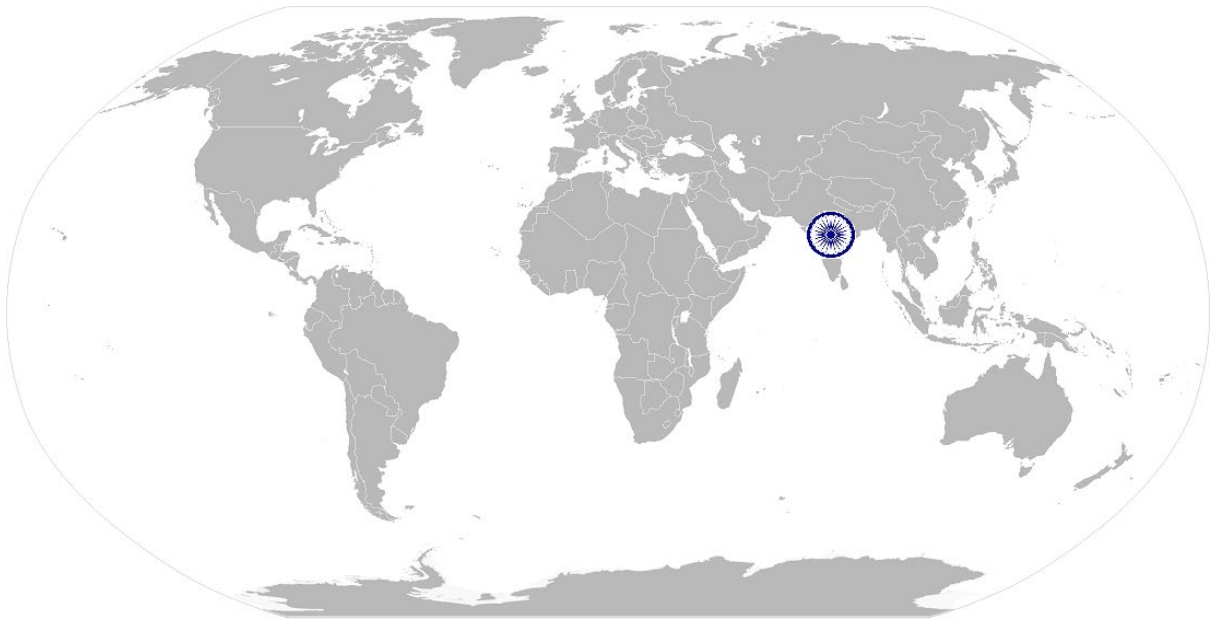
Overview

This unit is about building and maintaining constructive relationships at the workplace.

SSC/N9006   **Build and maintain relationships at the workplace**

Unit Code	SSC/N9006
Unit Title (Task)	**Build and maintain relationships at the workplace**
Description	This unit is about building and maintaining constructive relationships at the workplace.
NSQF Level	6
Scope	This unit/task covers the following: • Build relationships • Maintain relationships Range: Appropriate people such as line manager, members of the team / department, members from other teams / departments

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Build relationships	To be competent, the user/individual on the job must be able to: PC1. build rapport with appropriate people at the workplace PC2. develop new professional relationships PC3. build alliances to establish mutually beneficial working arrangements PC4. foster an environment where others feel respected PC5. identify and engage a diverse range of influential contacts
Maintain relationships	To be competent, the user/individual on the job must be able to: PC6. obtain guidance from appropriate people, where necessary PC7. attentively listen to ideas and give constructive feedback PC8. promptly resolve conflicts between team members PC9. work with colleagues to deliver shared goals PC10. recognize the contributions made by your colleagues

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. organizational policies and procedures for building relationships and their role and responsibilities in relation to this KA2. different training programs to enable the development of relevant behavioural competencies
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. the importance of creating an environment of trust and mutual respect in the organisation

SSC/N9006   **Build and maintain relationships at the workplace**

	KB2. the importance of effective communication in developing productive working relationships with colleagues KB3. different types of information that colleagues might need and the importance of providing this information when it is required
Skills (S)	
A. Core / Generic Skills	**Listening and Speaking Skills** The user/ individual on the job needs to know and understand how to: SA1. ask for clarification and advice from line managers **Team Working** The user/ individual on the job needs to know and understand how to: SA2. work effectively in a team environment
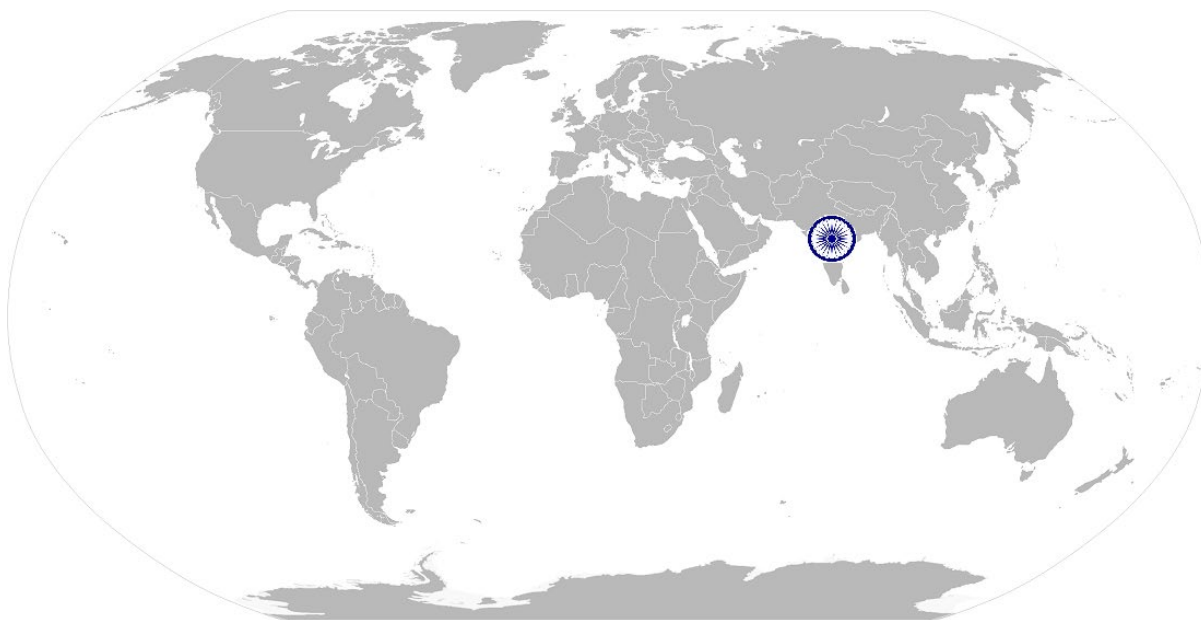
NOS Version Control

NOS Code	SSC/N9006		
Credits (NSQF)	TBD	**Version number**	1.0
Industry	IT-ITeS	**Drafted on**	29/08/2018
Industry Sub-sector	Future Skills	**Last reviewed on**	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	**Next review date**	31/12/2019
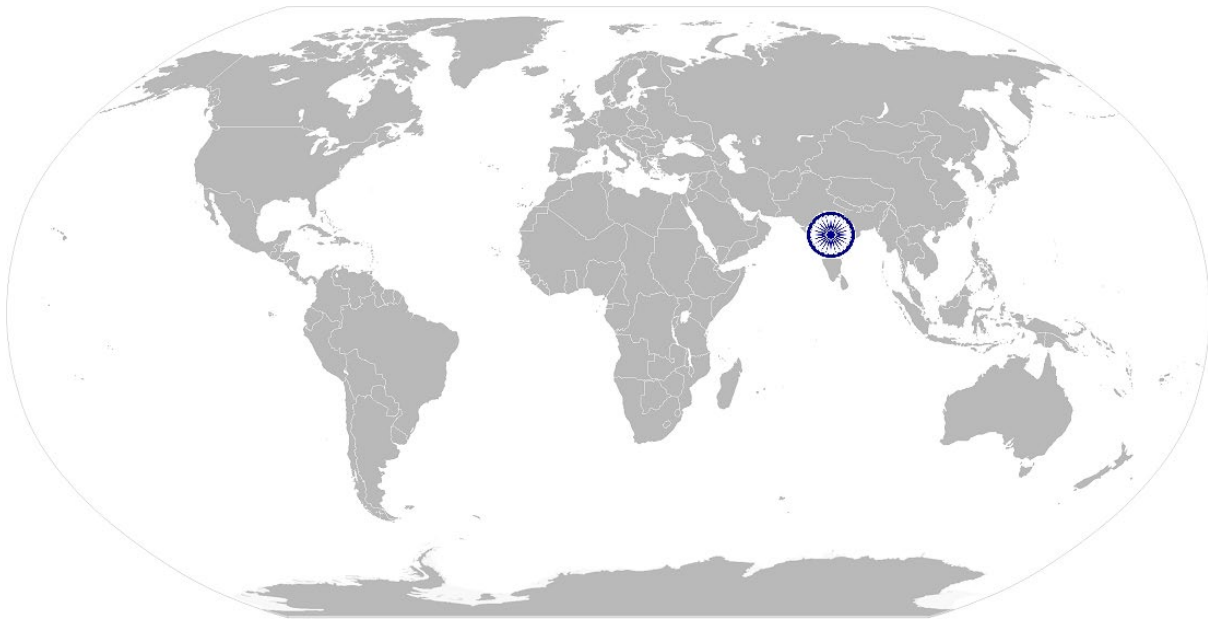
National Occupational Standard
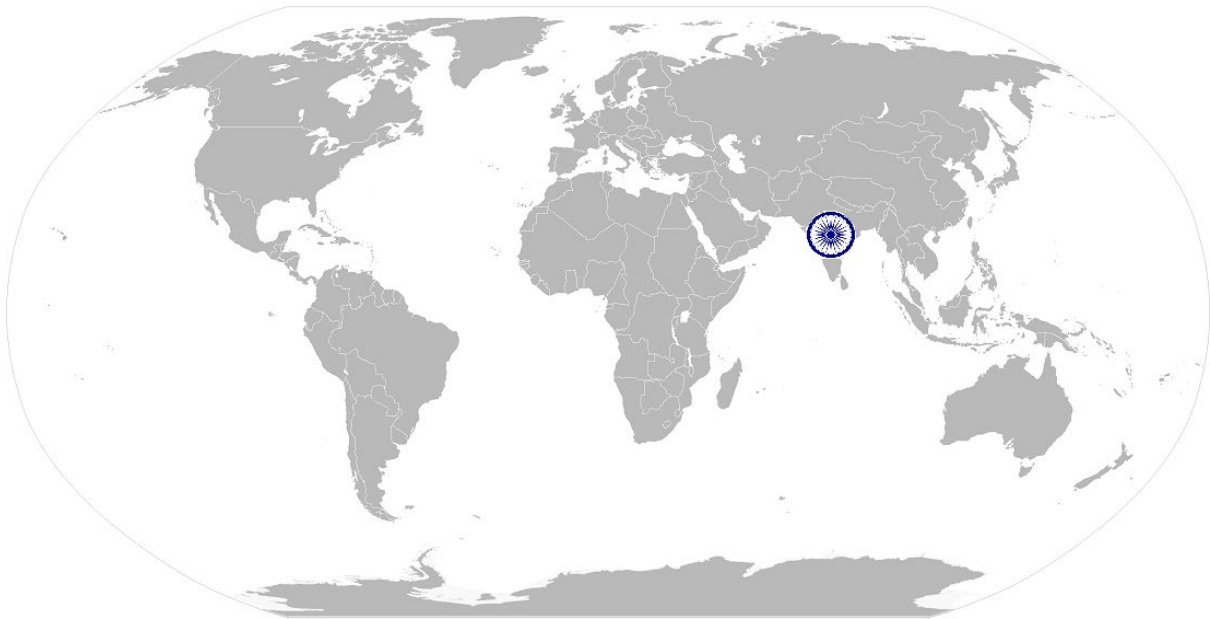
<u>**Overview**</u>

This unit is about the ability to see things as a whole, identify key issues, see relationships and draw elements together into broad coherent frameworks.

SSC/N9008   **Define a clear strategic outlook**

Unit Code	SSC/N9008
Unit Title (Task)	Define a clear strategic outlook
Description	This unit is about the ability to see things as a whole, identify key issues, see relationships and draw elements together into broad coherent frameworks.
NSQF Level	9
Scope	This unit/task covers the following: • Define key areas • Define strategic plan Appropriate People: members of the team/department, members from other teams/departments, client

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Define key areas	To be competent, the user/individual on the job must be able to: PC1. identify key issues and draw elements together into a broad context PC2. consistently take account of the long term impact of the team's action for the organisation PC3. define the areas where time and investment needs to be devoted and set organisational priorities
Define strategic plan	To be competent, the user/individual on the job must be able to: PC4. define specific actions to contribute to the organization's objectives PC5. align goals of the team with the strategic direction of the business PC6. prepare the team to accomplish the objectives PC7. align the needs of the team with the wider goals of the organization PC8. develop practical and tangible plans to translate the organization's vision and objectives PC9. involve partner views and objectives in defining strategic outlooks

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. organizational policies and procedures for defining strategic outlooks and their role and responsibilities in relation to this KA2. organizational policies and procedures for dealing with confidential information
B. Technical Knowledge	The user/individual on the job needs to know and understand:

SSC/N9008   **Define a clear strategic outlook**

	KB1. the importance of understanding organizational needs and objectives
	KB2. different strategies to satisfy organizational needs and objectives
Skills (S)	
A. Core / Generic Skills	**Decision Making** The user/ individual on the job needs to know and understand how to: SA1. follow rule based decision making processes SA2. Make decisions on suitable courses **Problem Solving** The user/ individual on the job needs to know and understand how to: SA3. apply problem solving approaches in different situations **Critical Thinking** The user/ individual on the job needs to know and understand how to: SA4. apply balanced judgments to different situations

SSC/N9008   **Define a clear strategic outlook**

NOS Version Control

NOS Code	SSC/N9008		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019

National Occupational Standard

Overview

This unit is about empowering the team and conveying confidence in their abilities to be successful.

National Occupational Standard

Unit Code	SSC/N9009
Unit Title (Task)	**Empower the team**
Description	This unit is about empowering the team and conveying confidence in their abilities to be successful.
NSQF Level	8
Scope	This unit/task covers the following: • Motivate team • Support team Appropriate People: members of the team / department, members from other teams / departments

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Motivate team	To be competent, the user/individual on the job must be able to: PC1. encourage teams to set goals aligned to the vision and objectives of the organization PC2. express confidence on the team's ability to accomplish certain tasks PC3. encourage team members with diverse view points to express their concerns PC4. recognise individual contributions and acknowledge team accomplishments
Support team	To be competent, the user/individual on the job must be able to: PC5. assist team members in delivery of their work PC6. support team members in taking independent action PC7. develop mechanisms to incorporate and develop ideas from the team

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. organizational policies and procedures for empowering the team and their role and responsibilities in relation to this
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different types of information that team members might need and the importance of providing this information when it is required

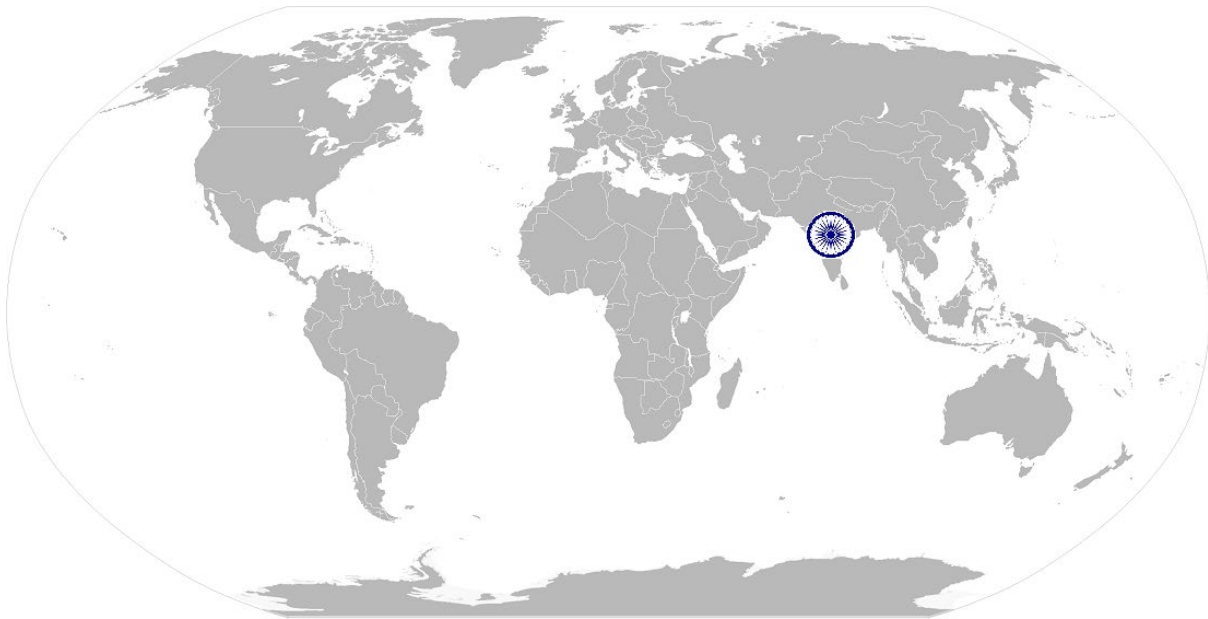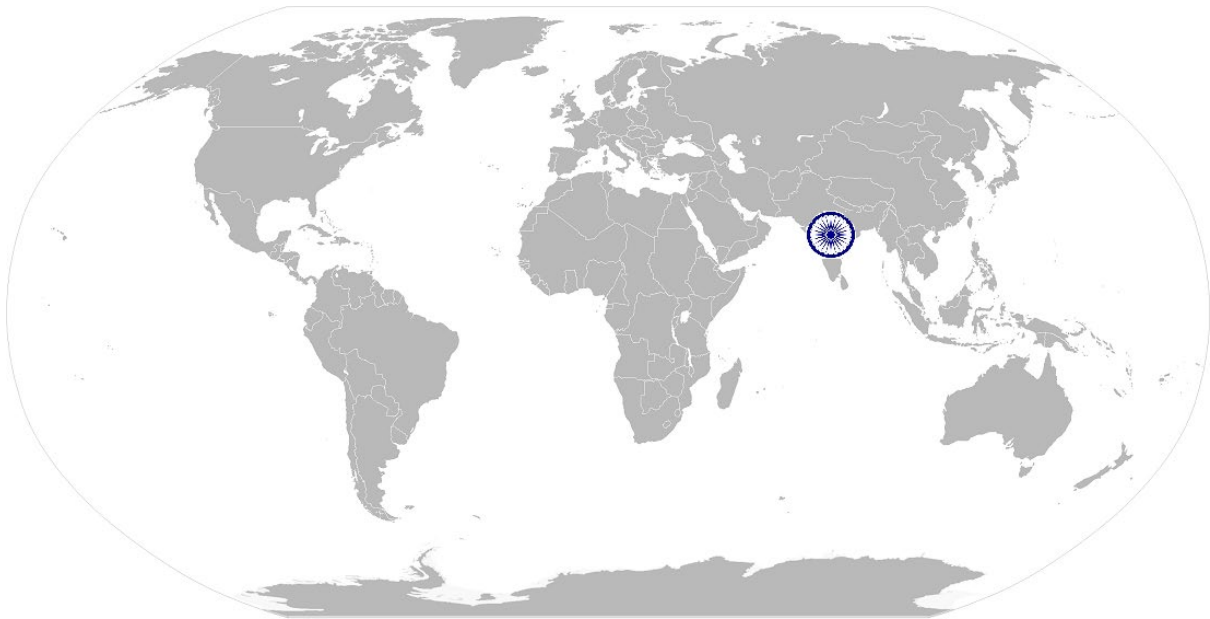|	
	KB2. the importance of understanding problems from your team's perspective and how to provide support, where necessary, to resolve these
	KB3. different mechanisms to incorporate and develop ideas put forward by the team
Skills (S)	
A. Core / Generic Skills	**Critical Thinking** The user/ individual on the job needs to know and understand how to: SA1. apply balanced judgments to different situations **Team Working** The user/ individual on the job needs to know and understand how to: SA2. work effectively in a team environment
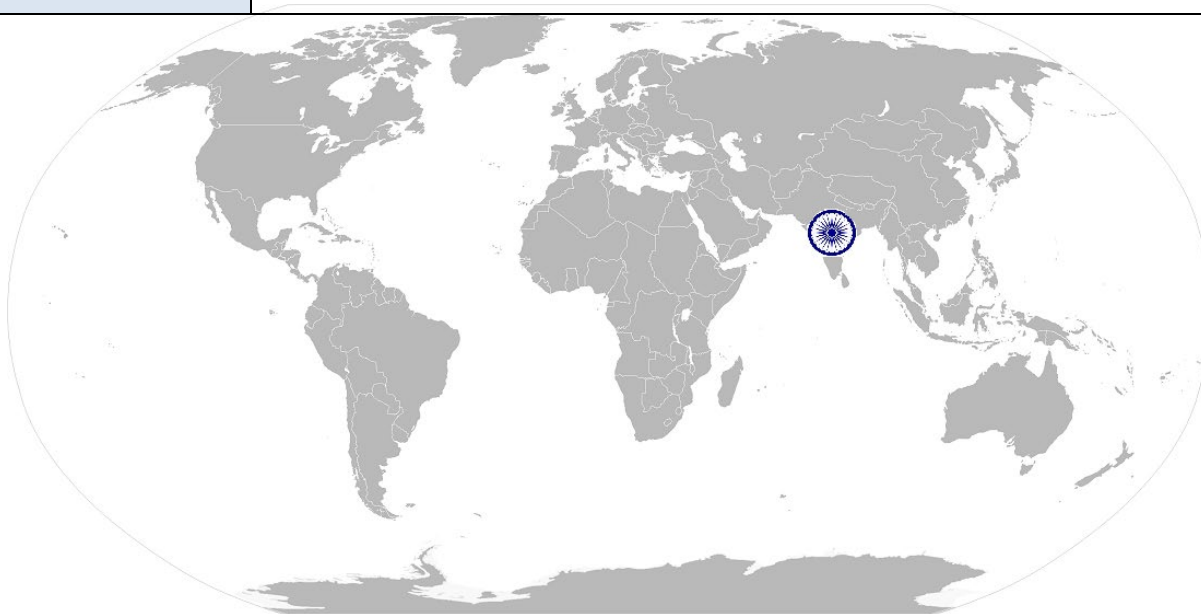
NOS Version Control

NOS Code	SSC/N9009		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019
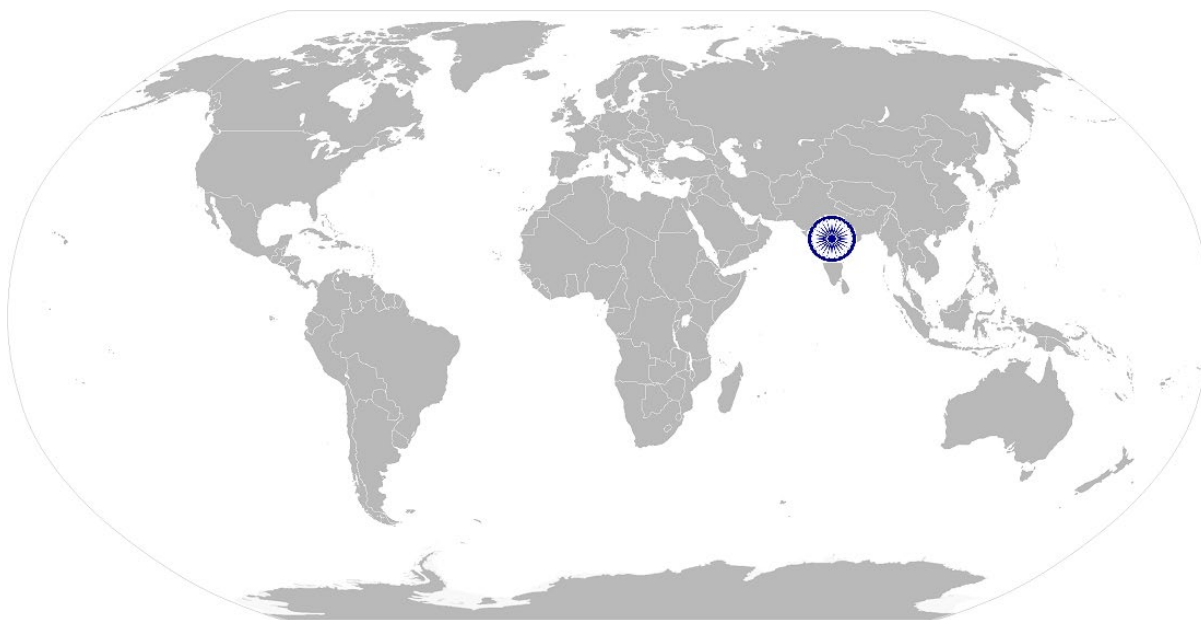
National Occupational Standard

Overview

This unit is about convincing others to take appropriate action in different situations.

SSC/N9010   **Convince others to take appropriate action in different situations**

Unit Code	SSC/N9010
Unit Title (Task)	**Convince others to take appropriate action in different situations**
Description	This unit is about convincing others to take appropriate action in different situations.
NSQF Level	6
Scope	This unit/task covers the following: • Define needs • Persuade others Range: Appropriate people such as line manager, members of the team / department, members from other teams / departments

| **Performance Criteria (PC) w.r.t. the Scope**	
Element	**Performance Criteria**
Define needs	To be competent, the user/individual on the job must be able to: PC1. gather needs of concerned people PC2. adapt arguments to consider diverse needs
Persuade others	To be competent, the user/individual on the job must be able to: PC3. use small wins as milestones to gain support for ideas PC4. persuade with the help of concrete examples or evidences PC5. take defined steps to reach a consensus on the course of action
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	The user/individual on the job needs to know and understand: KA1. organizational policies and procedures for persuading people and their role and responsibilities in relation to this
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different types of information that people might need and the importance of providing this information when it is required KB2. different methods of communication and the circumstances in which it is appropriate to use these
Skills (S)	
A. Core / Generic	**Listening and Speaking Skills** The user/ individual on the job needs to know and understand how to:

SSC/N9010   **Convince others to take appropriate action in different situations**

Skills	SA1. ask for clarification and advice from appropriate people
	SA2. listen effectively and orally communicate information accurately
	Decision Making
	The user/ individual on the job needs to know and understand how to:
	SA3. make decisions on suitable courses
	Critical Thinking
	The user/ individual on the job needs to know and understand how to:
	SA4. apply balanced judgements to different situations
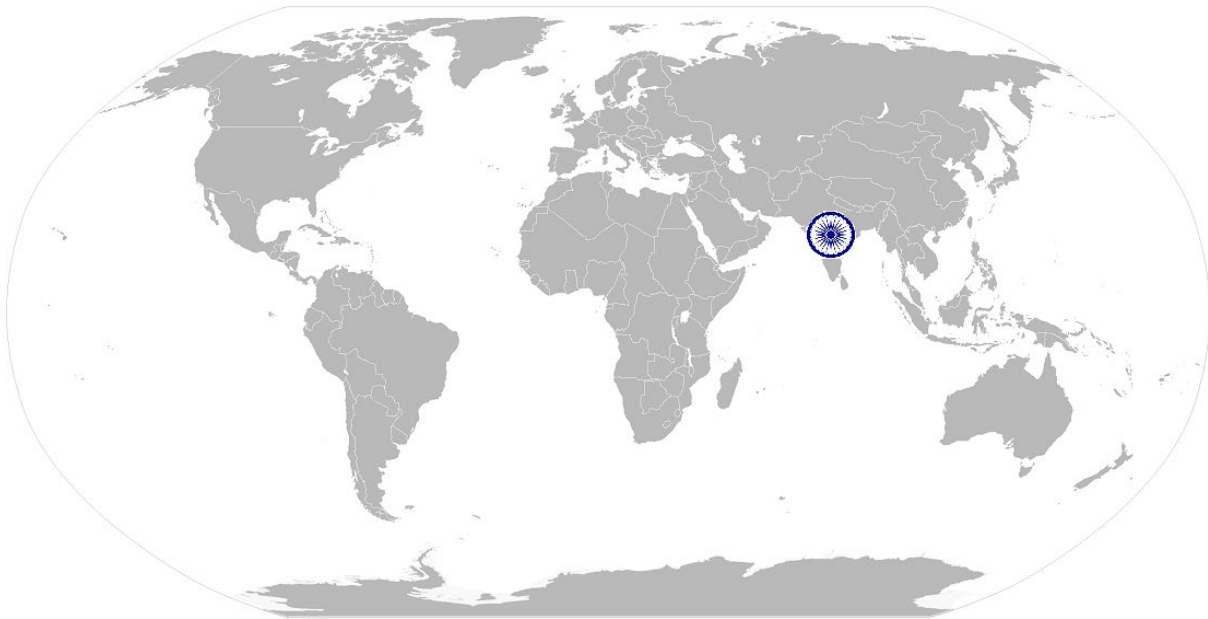
NOS Version Control

NOS Code	SSC/N9010		
Credits (NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	29/08/2018
Industry Sub-sector	Future Skills	Last reviewed on	17/10/2018
Occupation	Artificial Intelligence & Big Data Analytics	Next review date	31/12/2019
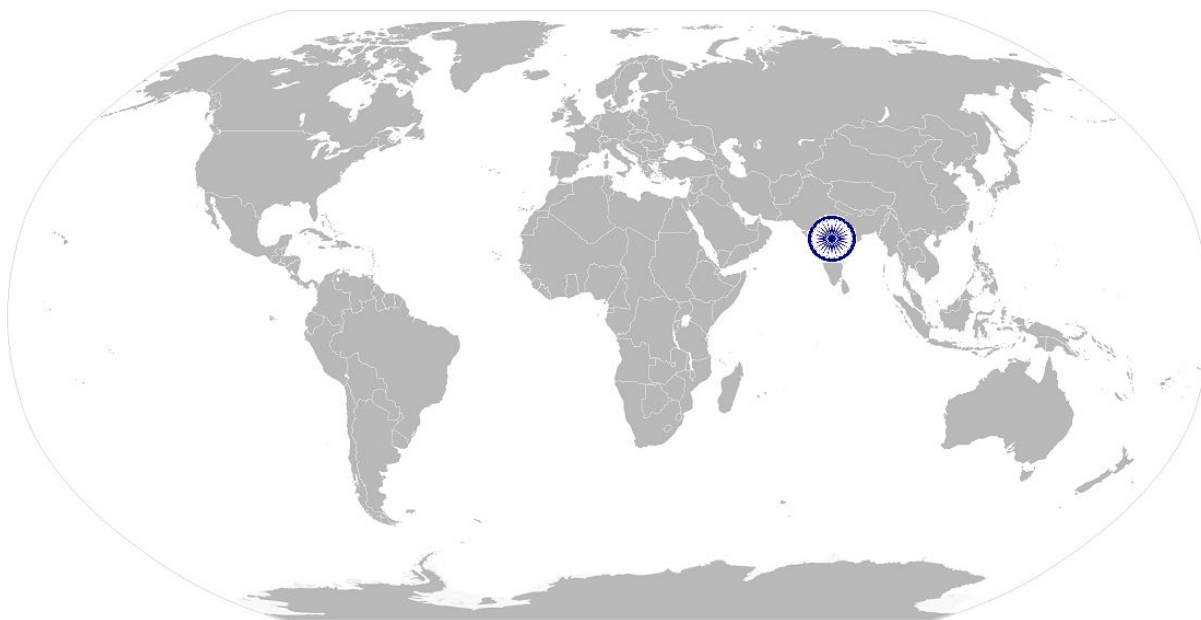
Annexure

Nomenclature for QP and NOS

Qualifications Pack

9 characters

SSC/ Q 0101

SSC denoting Software & Services Companies (IT-ITeS industry)

Q denoting Qualifications Pack

QP number (2 numbers)

Occupation (2 numbers)

National Occupational Standard

9 characters

SSC/ N 0101

SSC denoting Software & Services Companies (IT-ITeS industry)

N denoting National Occupational Standard

NOS number (2 numbers)

Occupation (2 numbers)

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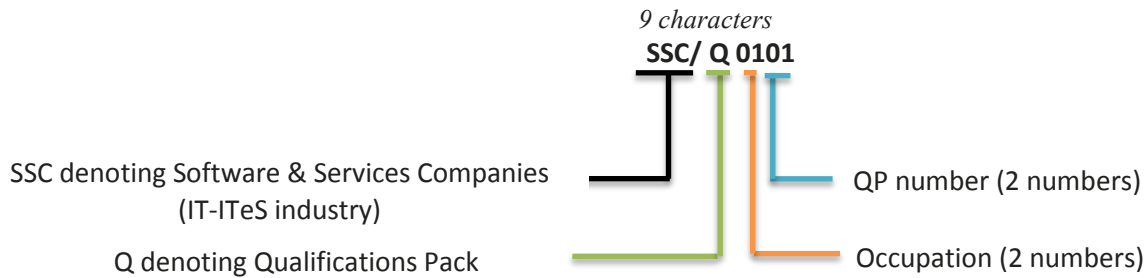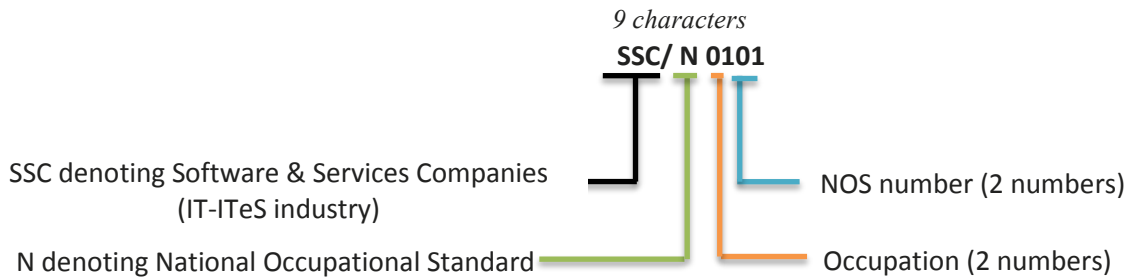
The following acronyms/codes have been used in the nomenclature above:

Sequence	Description	Example
Three letters	Industry name (Software & Services Companies)	SSC
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

Criteria For Assessment Of Trainees

Job Role AI - Chief Data Officer

Qualification Pack SSC/Q8119

Sector Skill Council IT-ITeS

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass a QP, a trainee should score an average of 70% across generic NOS' and a minimum of 70% for each technical NOS.
7. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS					Marks Allocation	
Total Marks: 900						
Assessment outcomes	**Assessment Criteria for outcomes**	**Total Marks**	**Out Of**		**Theory**	**Skills Practical**
1. SSC/N8126 Define the strategy and drive outcomes for data management, governance and utilization	PC1. evaluate current and future business and IT requirements	100	5		0	5
	PC2. evaluate data assets found internally in the organization and the external data ecosystem		5		0	5
	PC3. define a strategy to leverage data to unify business and IT requirements for an appropriate duration		20		7	13
	PC4. define a governance model including compliance, change management procedures, workflow		15		5	10

	guidance and key organizational structures				
	PC5. define standards and processes for data management, metadata management and data stewardship		20	8	12
	PC6. define stage-gated success metrics for the data strategy		15	5	10
	PC7. create documentation on the data strategy		5	0	5
	PC8. communicate the vision and strategic principles to appropriate people		5	0	5
	PC 9. work with different teams to drive outcomes based on the defined data strategy		10	3	7
	Total		**100**	**28**	**72**
2. SSC/N9001 Manage your work to meet requirements	PC1. establish and agree your work requirements with appropriate people	100	6.25	0	6.25
	PC2. keep your immediate work area clean and tidy		12.5	6.25	6.25
	PC3. utilize your time effectively		12.5	6.25	6.25
	PC4. use resources correctly and efficiently		18.75	6.25	12.5
	PC5. treat confidential information correctly		6.25	0	6.25
	PC6. work in line with your organization's policies and procedures		12.5	0	12.5
	PC7. work within the limits of your job role		6.25	0	6.25
	PC8. obtain guidance from appropriate people, where necessary		6.25	0	6.25
	PC9. ensure your work meets the agreed requirements		18.75	6.25	12.5
	Total		**100**	**25**	**75**
3. SSC/N9002 Work effectively with colleagues	PC1. communicate with colleagues clearly, concisely and accurately	100	20	0	20
	PC2. work with colleagues to integrate your work effectively with them		10	0	10
	PC3. pass on essential information to colleagues in line with organizational requirements		10	10	0
	PC4. work in ways that show respect for colleagues		20	0	20
	PC5. carry out commitments you have made to colleagues		10	0	10
	PC6. let colleagues know in good time if you cannot carry out your commitments, explaining the reasons		10	10	0

	PC7. identify any problems you have working with colleagues and take the initiative to solve these problems		10	0	10
	PC8. follow the organization's policies and procedures for working with colleagues		10	0	10
	Total		**100**	**20**	**80**
4. SSC/N9004 Provide data/information in standard formats	PC1. establish and agree with appropriate people the data/information you need to provide, the formats in which you need to provide it, and when you need to provide it		12.5	12.5	0
	PC2. obtain the data/information from reliable sources		12.5	0	12.5
	PC3. check that the data/information is accurate, complete and up-to-date		12.5	6.25	6.25
	PC4. obtain advice or guidance from appropriate people where there are problems with the data/information		6.25	0	6.25
	PC5. carry out rule-based analysis of the data/information, if required	100	25	0	25
	PC6. insert the data/information into the agreed formats		12.5	0	12.5
	PC7. check the accuracy of your work, involving colleagues where required		6.25	0	6.25
	PC8. report any unresolved anomalies in the data/information to appropriate people		6.25	6.25	0
	PC9. provide complete, accurate and up-to-date data/information to the appropriate people in the required formats on time		6.25	0	6.25
	Total		**100**	**25**	**75**
5. SSC/N9005 Develop your knowledge, skills and competence	PC1. obtain advice and guidance from appropriate people to develop your knowledge, skills and competence		10	0	10
	PC2. identify accurately the knowledge and skills you need for your job role		10	0	10
	PC3. identify accurately your current level of knowledge, skills and competence and any learning and development needs	100	20	10	10
	PC4. agree with appropriate people a plan of learning and development activities to address your learning needs		10	0	10
	PC5. undertake learning and development activities in line with your plan		20	10	10

	PC6. apply your new knowledge and skills in the workplace, under supervision		10	0	10
	PC7. obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them		10	0	10
	PC8. review your knowledge, skills and competence regularly and take appropriate action		10	0	10
	Total		**100**	**20**	**80**
6. SSC/N9006 Build and maintain relationships at the workplace	PC1. build rapport with appropriate people at the workplace	100	10	3	7
	PC2. develop new professional relationships		10	3	7
	PC3. build alliances to establish mutually beneficial working arrangements		10	3	7
	PC4. foster an environment where others feel respected		10	4	6
	PC5. identify and engage a diverse range of influential contacts		10	4	6
	PC6. obtain guidance from appropriate people, wherever necessary		10	3	7
	PC7. attentively listen to ideas and give constructive feedback		10	3	7
	PC8. promptly resolve conflicts between self or others		10	2	8
	PC9. work with colleagues to deliver shared goals		10	2	8
	PC10. recognize the contributions made by your colleagues		10	3	7
	Total		**100**	**30**	**70**
7. SSC/N9008 Define a clear strategic outlook	PC1. identify key issues and draw elements together into a broad context	100	10	3	7
	PC2. consistently take account of the long term impact of the team's action for the organization		10	3	7
	PC3. define the areas where time and investment needs to be devoted and set organizational priorities		20	5	15
	PC4. define specific actions to contribute to the organization's objectives		10	3	7
	PC5. align goals of the team with the strategic direction of the business		10	3	7
	PC6. prepare the team to accomplish the objectives		10	3	7
	PC7. align the needs of the team with the wider goals of the organization		10	3	7

	PC8. develop practical and tangible plans to translate the organization's vision and objectives		10	3	7
	PC9. involve partner views and objectives in defining strategic outlooks		10	3	7
	Total		**100**	**29**	**71**
8. SSC/N9009 Empower the team	PC1. encourage teams to set goals aligned to the vision and objectives of the organization	100	10	5	5
	PC2. express confidence on the team's ability to accomplish certain tasks		10	5	5
	PC3. encourage team members with diverse view points to express their concerns		10	5	5
	PC4. recognize individual contributions and acknowledge team accomplishments		20	5	15
	PC5. assist team members in delivery of their work		15	5	10
	PC6. support team members in taking independent action		15	5	10
	PC7. develop mechanisms to incorporate and develop ideas from the team		20	5	15
	Total		**100**	**35**	**65**
9. SSC/N9010 Convince others to take appropriate action in different situations	PC1. gather needs of concerned people	100	10	0	10
	PC2. adapt arguments to consider diverse needs		15	0	15
	PC3. use small wins as milestones to gain support for ideas		25	10	15
	PC4. persuade with the help of concrete examples or evidences		25	10	15
	PC5. take defined steps to reach a consensus on the course of action		25	10	15
	Total		**100**	**30**	**70**