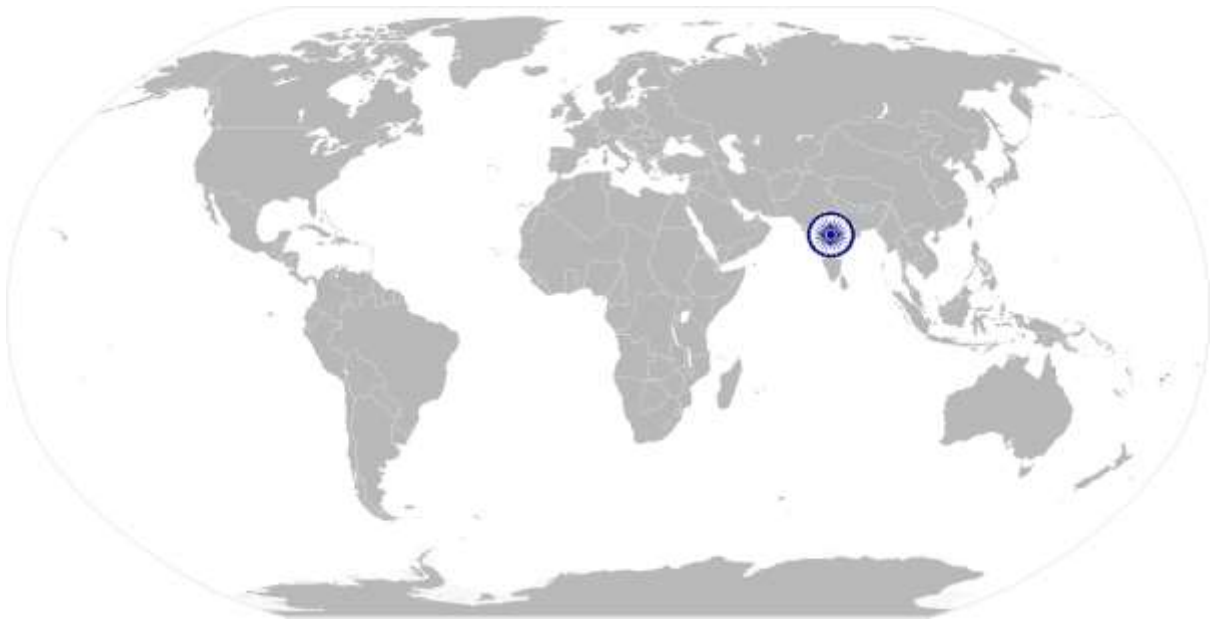



# National Occupational Standard



## Overview

This unit is about contributing to the support and maintenance of software applications. It involves identifying issues/change requests, identifying immediate solutions/workarounds and contributing to the design, development, testing, documentation and implementation of solutions/changes.

SSC/ N 0201      **Contribute to the support and maintenance of software applications**

Applicable OS Unit	<b>Unit Code</b>	SSC / O 0201
	<b>Unit Title (Task)</b>	<b>Contribute to the support and maintenance of software applications</b>
	<b>Description</b>	<p>This unit is about contributing to the support and maintenance of software applications. It involves identifying issues/change requests, identifying immediate solutions/workarounds and contributing to the design, development, testing, documentation and implementation of solutions/changes.</p> <p>You are only expected to contribute to the maintenance of software applications within your level of competence and authority. Where you are authorized to design, develop, test, document or implement solutions/changes you are expected to work to the occupational standards covering these tasks.</p>
	<b>Scope</b>	<p>This unit/task covers the following:</p> <p><b>Issues:</b></p> <ul style="list-style-type: none"> <li>• bugs</li> <li>• enhancements</li> </ul> <p><b>Appropriate people:</b></p> <ul style="list-style-type: none"> <li>• line manager</li> <li>• software development team</li> <li>• subject matter experts</li> </ul> <p><b>Changes to:</b></p> <ul style="list-style-type: none"> <li>• code</li> <li>• environment</li> <li>• configuration</li> </ul> <p><b>Testing:</b></p> <ul style="list-style-type: none"> <li>• unit testing</li> <li>• functionality testing</li> </ul> 
<b>Performance Criteria (PC) w.r.t. the Scope</b>		
	<p>To be competent, you must be able to:</p> <p>PC1. monitor systems to identify promptly automated alerts and customer change requests</p> <p>PC2. analyze alerts to accurately identify <b>issues</b></p> <p>PC3. record and acknowledge <b>issues</b> and change requests using relevant tools and procedures</p> <p>PC4. access your organization's knowledge base to identify any immediate solutions/workarounds</p> <p>PC5. evaluate the suitability of solutions/workarounds, where available</p> <p>PC6. evaluate new design solutions where immediate solutions/workarounds are not available</p>	

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	<p>PC7. agree immediate solutions/workarounds or new design solutions with <b>appropriate people</b></p> <p>PC8. make agreed <b>changes</b> to address <b>issues</b> where these are within your level of competence and authority</p> <p>PC9. carry out <b>testing</b> on the <b>changes</b> where these are within your level of competence and authority</p> <p>PC10. refer <b>changes</b> outside your level of competence and authority to <b>appropriate people</b></p> <p>PC11. produce documentation, deployment scripts and release notes using standard templates and tools</p> <p>PC12. obtain approval from <b>appropriate people</b> to implement immediate solutions/workarounds and <b>changes</b></p> <p>PC13. co-ordinate the implementation of immediate solutions/workarounds and <b>changes</b> in line with your organization’s standards and guidelines</p> <p>PC14. obtain advice and guidance from <b>appropriate people</b>, where necessary</p> <p>PC15. recommend to <b>appropriate people</b> any ways in which support and maintenance procedures can be improved</p> <p>PC16. update your organization’s knowledge base with the <b>changes</b></p> <p>PC17. comply with relevant standards, policies, procedures, guidelines and service level agreements (SLAs) when contributing to the maintenance of software applications</p>
<b>Knowledge and Understanding (K)</b>	
<p><b>A. Organizational Context</b> (Knowledge of the company/ organization and its processes)</p>	<p>You need to know and understand:</p> <p>KA1. your organization’s policies, procedures, guidelines and coding standards for the maintenance of software applications</p> <p>KA2. the importance of using specific client agreements, SLAs and management plans when working with customers</p> <p>KA3. different IT applications and the environments in which they are used</p> <p>KA4. limits of your role and responsibilities in relation to maintaining software applications</p> <p>KA5. who to refer problems to when they cannot be resolved</p> <p>KA6. basic operation of ticketing tools , incident tickets, automated system alerts and change requests</p> <p>KA7. the basics of Information Technology Infrastructure Library (ITIL) which apply to service desk and incident management</p> <p>KA8. who to involve when contributing to software maintenance and development</p> <p>KA9. methods and techniques used when working with others</p> <p>KA10. methods, procedures and guidelines for evaluating, testing and implementing changes to software</p>

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	<p>KA11. the range of standard tools and templates and how to use them</p> <p>KA12. your organization's knowledge base and how to use and update it</p> <p>KA13. the importance of working in different shifts to meet customer requirements</p>
<b>B. Technical Knowledge</b>	<p>You need to know and understand:</p> <p>KB1. relevant product reference guides or support materials and how to access them</p> <p>KB2. methods and techniques to identify and evaluate workarounds or new solutions</p> <p>KB3. how to develop documentation, deployment scripts and release notes</p> <p>KB4. configuration management and version control techniques for software maintenance/changes</p> <p>KB5. procedures, practices and tools for developing, testing and applying changes to software</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	You need to know and understand how to:
	SA1. complete accurate well written work with attention to detail
	SA2. communicate with others in writing
	<b>Reading Skills</b>
	You need to know and understand how to:
SA3. follow guidelines/procedures/rules and service level agreements	
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	You need to know and understand how to:
	SA4. listen effectively and orally communicate information accurately
	SA5. ask for clarification and advice from others
	<b>Decision Making</b>
	You need to know and understand how to:
SB1. follow rule-based decision-making processes	
SB2. identify anomalies in data	
SB3. make decisions on suitable courses of action or responses	
<b>B. Professional Skills</b>	<b>Plan and Organize</b>
	You need to know and understand how to:
	SB4. plan and organize your work to achieve targets and deadlines
	<b>Customer Centricity</b>
	You need to know and understand how to:
	SB5. carry out rule-based transactions in line with customer-specific guidelines/procedures/rules and service level agreements
SB6. work effectively in a customer facing environment	
SB7. check your own and/or your peers work meets customer requirements	

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	<b>Problem Solving</b>
	You need to know and understand how to: SB8. refer anomalies to the supervisor SB9. apply problem-solving approaches in different situations SB10. seek clarification on problems from others
	<b>Analytical Thinking</b>
	You need to know and understand how to: SB11. analyze data and activities SB12. configure data and disseminate relevant information to others SB13. pass on relevant information to others
	<b>Critical Thinking</b>
	You need to know and understand how to: SB14. provide opinions on work in a detailed and constructive way SB15. apply balanced judgments to different situations
	<b>Attention to Detail</b>
You need to know and understand how to: SB16. check your work is complete and free from errors SB17. get your work checked by others	
<b>Team Working</b>	
You need to know and understand how to: SB18. contribute to the quality of team working SB19. work effectively in a team environment SB20. work independently and collaboratively	
<b>C. Technical Skills</b>	You need to know and understand how to: SC1. source and use coding standards, ticketing tools and utilities/tools SC2. use information technology effectively to input and/or extract data accurately SC3. identify and refer anomalies in data SC4. store and retrieve information SC5. agree objectives and work requirements SC6. learn and adapt new technologies SC7. keep up to date with changes, procedures and practices in your field of expertise

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**NOS Version Control**

<b>NOS Code</b>	<b>SSC / O 0201</b>		
<b>Credits(NVEQF/NVQF/NSQF) [OPTIONAL]</b>		<b>Version number</b>	<b>0.1</b>
<b>Industry</b>	<b>IT-ITeS</b>	<b>Drafted on</b>	<b>30/04/2013</b>
<b>Industry Sub-sector</b>	<b>IT Services</b>	<b>Last reviewed on</b>	<b>31/03/2018</b>
		<b>Next review date</b>	<b>31/03/2019</b>

