

Revised Application Documentation: Version 4 /22 April, 2015

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

IT-ITeS Sector Skills Council NASSCOM (SSC NASSCOM)

4E, Vandhana Building (4th Floor)

11, Tolstoy Marg, Connaught Place, New Delhi - 110001

Name and contact details of individual dealing with the submission

Name: Dr. Sandhya Chintala

Position in the organisation CEO

Address if different from aboveNA

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List of documents submitted in support of the Qualifications File

1. Functional Map for the job role
2. [Occupational Analysis](#) for Software Product Development
3. Qualification Pack
4. Career Map for the job role / occupation: vertical and horizontal mobility
5. [Test Matrix Template](#)
6. [Talent Demand Supply Analysis Report](#)

QUALIFICATION FILE SUMMARY

Qualification Title	Media Developer		
Body/bodies which will assess candidates	IT-ITeS Sector Skills Council NASSCOM (SSC NASSCOM)		
Body/bodies which will award the certificate for the qualification.	SSC NASSCOM		
Body which will accredit providers to offer the qualification.	SSC NASSCOM Presently, Accreditation is not prescribed; affiliation is one of the models.		
Occupation(s) to which the qualification gives access	Product Development & Delivery		
Proposed level of the qualification in the NSQF.	5		
Notional Learning Hours	400hours approx. (customisable as per learner background)		
Entry requirements / recommendations.	12th		
Progression from the qualification.	As shown in the career map (attachment sl.no. 4)		
Planned arrangements for RPL.	<ul style="list-style-type: none"> - Response to market forces for RPL - RPL assessments will be the same as our normal assessments. - MOUs / Agreement in place for institutions, Retail is work in progress 		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
SSC/N0501 (Contribute to the design of software products and applications)		100	5
SSC/N0503 (Develop media content and graphic designs for software products and applications)		100	
SSC/N9001 (Manage your work to meet requirements)		50	
SSC/N9002 (Work effectively with colleagues)		50	
SSC/N9003 (Maintain a healthy, safe and secure working environment)		25	
SSC/N9004 (Provide data/information in standard formats)		50	
SSC/N9005 (Develop your knowledge, skills and competence)		25	

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack. Give details of the document here: Qualification Pack (attachment SI no. 3)

SECTION 1

ASSESSMENT

Name of assessment body:

If there will be more than one assessment body for this qualification, give details.

- SSC NASSCOM is the assessment body, which affiliates assessment providers.

Will the assessment body be responsible for RPL assessment?

Give details of how RPL assessment for the qualification will be carried out and quality assured.

- Yes.
- It is online, objective evaluation in a highly secure and proctored environment.
- RPL assessments will be the same as our normal assessments.
- All procedures followed will be similar to the normal assessment methodology.
- Issuance of the qualification will be through the centralise SDMS (NSDC).
- Quality assurance – By equating performance amongst the multiple affiliated assessment provider (AAP) and periodic analytical review and sensitivity analysis for the reliability and validity of all aspects of assessments. AAP only refers to agency/organisation.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

- SSC NAASCOM carries out online assessments through very robust platforms and proctoring methodology.
- AAP affiliated to SSC NASSCOM come with strong industry references and long experience and analytical ability in assessment methodologies.
- Periodic workshops are held with the vendors to bring them to a common understanding of the job role, its NSQF level, difficulty level as well as format and sample of assessment items.
- Internal moderations further ensure the validity and reliability of the assessments and consistency of difficulty levels of the test questions across AAPs.
- AAPs work with hirers on similar job roles, they use SMEs from their network to get industry relevant scenarios and assessment items aligned to the expected outcomes of the job role/QP.
- Curriculum and real time scenarios facilitate further understanding the scope of the QP with reference to process knowledge and skills.
- In addition, we conduct workshops with AAPs w.r.t. beta testing, review of the assessment analytics, performance of the test platform, moderation of NSQF levels, deployment and invigilation patterns and infrastructure requirements including malpractice avoidance.
- Inferences from benchmarking and analytics patterns are taken into consideration in the development and revision of the assessment criteria and format of assessment items.
- Reliability and validity of assessment items is standardised among AAPs.
- Difficulty level of test items with reference to NSQF levels are ensured, so that the outcomes with reference to performance criteria of the constituent NOSs are in line with the NSQF level descriptors. This is achieved through the detailed test matrix design.

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

A detailed Test Matrix is used to design each assessment before it is launched for public view. Template for detailed test matrix is attached.

Public view of the assessment criteria is included in the qualification pack.

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

Job Role Media Developer

Qualification Pack SSC/Q6703

Sector Skill Council IT-ITeS

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack (QP) will be created by the Sector Skill Council (SSC). Each performance criteria (PC) will be assigned Theory and Skill/Practical marks proportional to its importance in NOS.
2. The assessment will be conducted online through assessment providers authorised by SSC.
3. Format of questions will include a variety of styles suitable to the PC being tested such as multiple choice questions, fill in the blanks, situational judgment test, simulation and programming test.
4. To pass a QP, a trainee should pass each individual NOS. Standard passing criteria for each NOS is 70%.
5. For latest details on the assessment criteria, please visit www.sscnasscom.com.

Title of NOS/Unit/Component:

Assessable Outcomes	Assessment criteria for the outcome	Total Mark	Out of	Theory	Skills Practical
1.SSC/N0501 (Contribute to the design of software products and applications)	PC1. check your understanding of the Business Requirements Specification (BRS)/User Requirements Specification (URS) with appropriate people	100	5	5	0
	PC2. check your understanding of the Software Requirements Specification (SRS) with appropriate people		5	5	0
	PC3. check your understanding of High Level Design (HLD) with appropriate people		5	5	0
	PC4. design basic programming structures to implement functionality in line with requirements defined in BRS/URS, SRS and HLD		40	0	40
	PC5. review your designs with appropriate people		10	10	0
	PC6. analyze inputs from appropriate people to identify, resolve and record design defects and inform future designs		15	15	0
	PC7. document your designs using standard templates and tools		10	0	10
	PC8. comply with your organization's policies, procedures and guidelines when contributing to the design of software products and applications		10	0	10
	Total	100	40	60	
2. SSC/N0503 (Develop media content and	PC1. check your understanding of the Business Requirements Specification (BRS), Software Requirements Specification (SRS), High Level	100	10	10	0

graphic designs for software products & applications)	Design (HLD) and Low Level Design (LLD) with appropriate people				
	PC2. access reusable components, media and graphical packages and tools from your organization's knowledge base		10	0	10
	PC3. convert requirements into media content and graphic designs, leveraging reusable components where available		15	0	15
	PC4. review media content and graphic designs with appropriate people and analyze their feedback		15	0	15
	PC5. record any defects and corrective actions taken to inform future work		10	0	10
	PC6. rework media content and graphic designs, incorporating feedback		10	0	10
	PC7. submit media content and graphic designs for approval by appropriate people		10	10	0
	PC8. update your organization's knowledge base with your experiences of the media content and graphic designs developed		10	0	10
	PC9. comply with your organization's policies, procedures and guidelines when developing media content and graphic designs for software products and applications		10	0	10
		Total	100	20	80
3.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
4.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 theirs		10	0	10
	PC3. pass on essential information to colleagues in		10	10	0

	line with organizational requirements				
	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
5.SSC/N9003 (Maintain a healthy, safe and secure working environment)	PC1. comply with your organization's current health, safety and security policies and procedures	100	20	10	10
	PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person		10	0	10
	PC3. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority		20	10	10
	PC4. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected		10	0	10
	PC5. follow your organization's emergency procedures promptly, calmly, and efficiently		20	10	10
	PC6. identify and recommend opportunities for improving health, safety, and security to the designated person		10	0	10
	PC7. complete any health and safety records legibly and accurately		10	0	10
	Total		100	30	70
6.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	100	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		25	0	25

	data/information, if required				
	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
7.SSC/N9005 (Develop your knowledge, skills and competence)	PC1. obtain advice and guidance from appropriate people to develop your knowledge, skills and competence	100	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		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	

Means of assessment 1

Proctored online assessments (LAN and Web based), carried out using a variety of question formats applicable for linear / adaptive methodologies; performance criteria being assessed via situation judgement tests, simulations, code writing, psychometrics and multiple choice questions etc.

Means of assessment 2

Presently not considered.

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

Sector wise occupational analysis lends weight to the need of the qualification prescribed. The research documents pertaining to this sub-sector are attached as per sl. Nos 2 and 6 respectively (Occupational Analysis report for the sub-sector” and “Talent Demand Supply Analysis Report”).

What is the estimated uptake of this qualification and what is the basis of this estimate?

Overview of the occupational demand that includes ‘Design Engineer-Product Manufacturing Support’, is available in the talent demand supply document. NASSCOM’s Strategic Review, 2015 articulates 2.30 lakh as new hires for the IT-BPM industry in FY 2014-15. In that, IT exports (includes ITS, ERD, SPD segment) covers 1.4 lakh, BPM – 40,000 and IT domestic (all inclusive) is 50,000.

In current FY 15-16, the expected net employment addition is going to be between 2 lakhs to 2.30 lakhs.

Further research is being undertaken to predict the qualification need for individual job roles.

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

Cleared by QRC at NSDC. It is available on public view for more than a year and has not been contested till date.

* As the understanding and adoption models of QPs evolve in the industry and across its sub-sectors, we foresee consolidation of qualification packs as a natural progression.

Note: This Job Role also exists in the IT sub-sector as Media Developer(SSC/Q1101). A clear distinction has been identified between the job responsibilities, technical & organisational knowledge & understanding required & the career progression of an individual at this job with respect to the two different sub-sectors which are Information Technology Sub-sector & Software Product Development.

Explaining the factors of distinction.

Factors of Distinction	Media Developer (SSC/Q6703) for the Software Product Development Sub-sector	Media Developer (SSC/Q1101) Information Technology Sub-sector
Occupational Roles & knowledge required	<p>Product Management involves handling the product through the entire Life-cycle – from inception to its phasing out – performing associated tasks with each phase. Professionals in this occupation manage different versions/releases of products and support customers.</p> <p>Product Management has been further divided into four key occupations:</p> <ol style="list-style-type: none"> Product Lifecycle Management Product Research and Design Product Development and Delivery Product Documentation <p>This job role falls within the</p>	<p>This job role falls within the occupation of Application Development in the Information Technology Sub-sector.</p> <p>Application Developers develop software codes using a range of platforms (operating systems) and programming /scripting languages.</p> <p>The application development professionals work closely with other software professionals like Testing and Support services. The responsibilities vary widely with the years of experience and the type of application platform.</p>

	<p>occupation of Product Development and Delivery within the occupation of Product Management in the Software Product Development Sub-sector.</p> <p>Media Development roles may work standalone or along with application/functional developers to improve the aesthetics of the application being developed.</p> <p>Media developers, Web developers and UI developers use software to develop front-end applications with smart graphics and enhanced look and feel and usability features</p>	<p>Media Development roles are responsible for designing and improving the look and feel, functionality and graphic appeal of the developed application. They are responsible for:</p> <ul style="list-style-type: none"> • Develops visual, audio/video media content • Uses software tools to develop media content for applications with smart graphics and enhanced look and feel and usability
Career Progression	<p>An individual at this job progresses from being a Media Developer to a Web Developer. Further he/she progresses to a Team Lead- Web Development & becomes a Manager - Product Development/Delivery, moving vertically from entry level to the middle level job roles.</p>	<p>An individual at this job progresses from being a Media Developer to a Senior Media Developer. Further he/she progresses to a Team Leader or Application Architect or a Web Solution Developer, moving vertically from entry level to the middle level job roles.</p>

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

- Monitoring and review of the qualifications is a project executed every two years. Presently, the research project is scheduled to take off.
- While adoption by industry and academia is one good indicator for the usefulness of a qualification pack, we adopt multiple approaches for periodic review and maintenance of the qualifications.
 1. Sub-sector wise Industry council, headed by council chair is a formal part of our governing structure. The council participates and steers the qualifications creation and upkeep. This council is a body elected by over 1800 member companies of NASSCOM.
 2. Special interest groups are formed for a more focused and detailed review of the qualifications in the light of emerging knowledge and skill areas.
 3. Events and workshops are conducted periodically to validate, monitor and review the qualification.
 4. As a part of due diligence process for affiliating Training providers, we do ask them for validation from their hirers – thus covering even medium, small and micro segment of the hiring companies.
 5. Any institution / individual is welcome to send feedback, which is recorded and considered during next review cycle.

The above data is used to update the Qualification and this revision is published annually. Nonetheless, if a major feedback is received prior to the planned review period, the change is considered in consultation with the industry council.

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here: Occupation analysis report for Software Product Development Sub-sector (attachment sl no. 2)

SECTION 3

SUMMARY EVIDENCE OF LEVEL

Level of qualification: 5

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

Media Developer - SSC/Q6703					
Process required	Professional knowledge	Professional skill	Core skill	Responsibility	Level
<p>Individuals at this job requires well developed skill to be able to understand the Business Requirements Specification (BRS)/User Requirements Specification (URS), Software Requirements Specification (SRS) and High Level Design (HLD) to contribute to the design of software products and applications.</p> <p>He/she needs have a clear understanding & choice of procedures to be able to analyse inputs from appropriate people to identify, resolve and record design defects and inform future designs.</p>	<p>This job requires to have factual knowledge of the field of work for which the individual is responsible for designing and improving the look and feel, functionality and graphics appeal of the developed application.</p> <p>He/she needs to know & understand the principles, processes and general concepts, in a field, such as:</p> <ul style="list-style-type: none"> • how to interpret and follow different design specifications, including, Business Requirements Specification (BRS), User 	<p>Individuals at this job need to have a range of cognitive and practical skills required for designing and improving the look and feel, functionality and graphics appeal of the developed application.</p> <p>They may work standalone or along with application/functional developers to improve the aesthetics of the application being developed.</p> <p>He/she needs to use basic information, methods & tools to check</p>	<p>Individuals at this job need to have mathematical skills to comply with Business Requirements Specification (BRS)/User Requirements Specification (URS), Software Requirements Specification (SRS) and High Level Design (HLD) to contribute to the design of software products and applications.</p> <p>The individual should be result oriented. The individual should also be able to demonstrate skills for communication, creative and logical thinking.</p>	<p>Individuals at this job are responsible for designing and improving the look and feel, functionality and graphics appeal of the developed application.</p> <p>They may work standalone or along with application/functional developers to improve the aesthetics of the application being developed.</p> <p>The individual should be result oriented. The individual should also be able to demonstrate skills for communication, and creative thinking.</p> <p>These tasks will require the individual to take responsibility of his/her own work and learning and some responsibility for other's too.</p> <p>Individual at this job does not work under supervision, as needed at Level</p>	5

<p>He/she also needs to review the designs & document them using standard templates and tools and also ensure that they comply with the organization's policies, procedures and guidelines when contributing to the design of software products and applications.</p>	<p>Requirements Specification (URS), Software Requirements Specification (SRS), High Level Design (HLD)</p> <ul style="list-style-type: none"> • how to design basic program structures • how to design software products • how to design software applications 	<p>that the work meets customer requirements & hence meet and exceed customer expectations.</p> <p>Also, based on the relevant information collected, he/she should have the ability to make decisions and act independently.</p>	<p>The core & generic job skills to collecting and organising information, communication that an individual should have, will help him/her understand & manage assigned works in the context of the social environment of the customer.</p>	<p>3. He/she is not only responsible for his/her own work (as in level 4), but also for others. Therefore, this QP is justified to be pegged at Level 5.</p>	
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Summary of other evidence (if used):

- Validated by Industry council through various workshops and through training provider stake holders

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

This qualification has been through workshops and consultations.
Adequate NOSs / performance criteria have been added to ensure progression to related path ways identified as per the occupational career map.

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

NA

SECTION 5

EVIDENCE OF INTERNATIONAL COMPARABILITY

List any comparisons which have been established.

Our standards follow the IT-ITeS industry requirements which caters to global markets.