## Teaching and Training

Students will gain knowledge and skills related to various tasks for the job role of Junior Software Developer through classroom teaching, practical training in Lab, exposure to activities during field visits and on-the-job training.

## Job Opportunities

Junior Software Developer, Trainee Programmer, Assistant for Coding and Debugging,

## Related Websites

**About Sector:**
https://www.sscnasscom.com

**About Higher Education**
https://www.ugc.gov.in

**About Curriculum and Courseware**
https://www.psscive.ac.in

**About Apprenticeship Training**
https://www.apprenticeshipindia.gov.in

**About Career Opportunities**
https://www.ncs.gov.in

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## For further information, please contact

**Dr. Deepak D. Shudhalwar**
**Professor**
**Department of Engineering and Technology,**
**PSSCIVE, Bhopal**

**Published by**



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एन सी ई आर टी
NCERT

**Joint Director**
**PSS Central Institute of Vocational Education (PSSCIVE), NCERT, Shyamla Hills, Bhopal – 462 002, Madhya Pradesh, India**

**www.psscive.ac.in**

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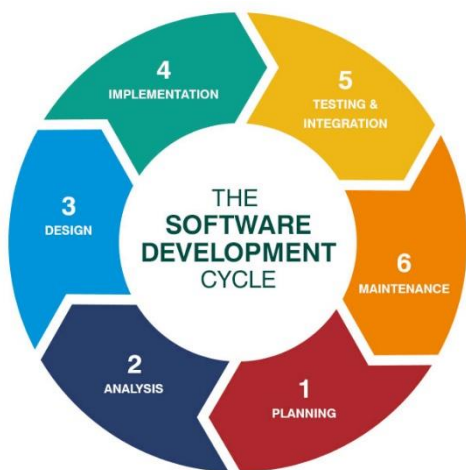**Junior Software Developer**

**(Grades 11 & 12)**

**QP Code: SSC/Q0508**



PYTHON



**Connect Python with SQL**

## Introduction

**Vocational subjects** are being offered along with general education subjects from Grades 9 to 12 under the scheme of *Samagra Shiksha.* The Ministry of Education, Government of India is implementing *Samagra Shiksha* in schools.

The curricula and textbooks for the vocational subjects have been developed by the PSS Central Institute of Vocational Education (PSSCIVE) as per the National Occupation Standards for the Job Roles approved under the National Skills Qualifications Framework (NSQF) in various sectors.

## About the Sector

**IT-ITeS Sector** is divided into four major segments – IT services, Business Process Management (BPM), software products and engineering services, and hardware. It provides the various job roles for school education, such as Domestic Data Entry Operator, CRM Domestic Voice, Domestic Biometric Data Operator, Junior Software Developer and Web Developer are in high demand.

## About the Job Role

Junior Software Developer is a entry level programmer assisting the software development team for coding, debugging, compiling and software design tasks throughout the development of software. They posses strong analytical and problem-solving skills, logical understanding and ability to solve the problem in programming languages such as Python, SQL. They can develop their skills in futuristic programming languages and undertake the course on Software Developer. They are highest paid IT professionals.

## Minimum Qualifications

The candidate should have passed Grade 10, possesses the ability to read/write and communicate effectively.

## Course Outline

| Grade 11 | |
|---|---|
| **Part A** | **Employability Skills** |
| Unit 1 | Communication Skills III |
| Unit 2 | Self-management Skills III |
| Unit 3 | Information and Communication Technology Skills  III |
| Unit 4 | Entrepreneurship Skills III |
| Unit 5 | Green Skills III |
| **Part B** | **Vocational Skills** |
| Unit 1 | Software Construction Essentials |
| Unit 2 | Operating System and Computer Network |
| Unit 3 | Python Programming |
| Unit 4 | Data Structure |

| Grade 12 | |
|---|---|
| **Part A** | **Employability Skills** |
| Unit 1 | Communication Skills IV |
| Unit 2 | Self-management Skills IV |
| Unit 3 | Information and Communication Technology Skills IV |
| Unit 4 | Entrepreneurship Skills IV |
| Unit 5 | Green Skills IV |
| **Part B** | **Vocational Skills** |
| Unit 1 | Relational Database Management System – MySQL |
| Unit 2 | Advanced Python Programming |
| Unit 3 | Software Engineering |
| Unit 4 | Emerging Trends and Social Impact |