

## 1. Non-Enterprise Server Environment

- a. PC Operating System : Windows 10 or higher
- b. Application Platform : IBM Software Suites (eg Digital Experience Manager, Digital Business Automation, Websphere Application Server, Domino, MQ), Microsoft (SharePoint)
- c. Word processing & Spreadsheet: MS Office 2016 (Word, Excel, PowerPoint, Access) and higher, Lotus Notes 9 or higher
- d. Browser : Internet Explorer version 11 or higher
- e. Programming Language : Lotus Notes ver 9.xx or higher, Lotus Script, Java, Java EE, Java Script, XML Script, HTML5
- f. Database : MS SQL Server, Oracle, Mongo DB, Orient DB
- g. Server Operating System: Suse Linux, Redhat, Ubuntu, Windows Server
- h. Java and Web Application Development Tool: Rational Application Developer Ver 9.0 & above
- i. Backup : Networker, Arcserve, Acronis
- j. Job Scheduling : Tivoli Workload Scheduler for Fault-Tolerant Agent, Job Access and Management System
- k. Tool : Dimensions CM, Teamstudio Delta & Configurator

## 2. Working Experience And Skill Requirement

1. Mandatory Basic Non Enterprise Server Skill Requirements For Programmers
  - a. Must be able to speak and write English proficiently;
  - b. Have at least three (3) years' post graduate experience working with Personal computers or compatibles;
  - c. Have at least three (3) years' post graduate experience using MS OS such as Windows 7 or higher and Microsoft Outlook;
  - d. Able to conduct unit, module, functional and volume testing; to analyse test results and to take corrective action.
2. For Java Requirement  
The Programmer shall be required to:
  - a. Have three (3) years' experience, within the past four (4) year's timeframe, in each of the programming skills:
    - JSP,
    - Servlet,
    - Java Bean,
    - Java Script,
    - Session management
    - JDBC, SQL
  - b. Have two (2) years' experience, within the past three (3) year's timeframe, in coding programs using each of the skills:
    - HTML 5
    - XHTML
    - AJAX
    - Web Services (REST API)
    - JSON
    - Java Server Faces
    - EJB (session, entity & message, Service Locator, Business Delegate, Data Transfer Object, Data Access Object),

- c. Preferably have hands on experience on the following:
  - IBM RAD9.0 or above or Eclipse or equivalent
  - Portal and Portlet development
  - n-Tier Architecture
  - Java Web Security/LDAP
  - JEE Security
  - JEE Transaction
  - XML
  - Web Services (SOAP)
  - JNDI
  - UML diagrams
  - Secure coding to prevent application vulnerabilities (for eg. Cross-site scripting; Injection vulnerability flaws such as SQL injection, command injection; Race conditions; Improper error / exception handling, etc)

### 3. Job Description

#### 1. Job Description For Programmers

The Programmers shall be required to:

- a. Code, modify, test, correct and document new and existing programs using assigned languages, tools and coding conventions;
- b. Prepare and document test data;
- c. Prepare and set up testing and production environment;
- d. Prepare and maintain program and system documentation;
- e. Assist in establishing file structures and processing logic requirements;
- f. Produce deliverables according to group standards and procedures;
- g. Assist Project Leaders in the study and design of application systems and work coordination, project management and user training work;
- h. Troubleshooting and supporting end-users in the implementation and maintenance of application systems;
- i. Train other contract programmers in the relevant skills;
- j. Participate in Disaster Recovery activities eg simulation exercise at Disaster Recovery sites;
- k. Learn / pick up new programming skills related to System Development and Maintenance as assigned by the supervisors;
- l. Any other tasks related to System Development and Maintenance as assigned by the supervisors;