#### Academic Task 1 – PRESENTATION INDIVIDUAL 1 - PES318

Section: K22 UB Group-2 Date: 23<sup>rd</sup> September 2022

Objective: To evaluate Students on their SWOT presentation

### What students are required to do?

- 1. The students will identify and present their SWOT analysis in the form of a digital presentation. This will be in accordance with the domain they intent to pursue.
- 2. The presentation will be 2-3 mins long.
- 3. Students are allowed, the use of the board if they wish to explain with a diagram.
- 4. They must mention the domain that they have prepared their presentation on. (Web developer, Cyber security specialist Etc.)
- 5. Domain Profiles: Web/ App Developer, Cyber security specialist, Data Analyst, Cloud Computing Specialist, Big data, SDE, IOT, AI/ML

#### Note:

- CA will be conducted in both Tutorial & Lecture of CA week. Therefore, students are supposed be present in the respective classes.
- A sample domain specific requirement sheet is shared with you in the next page.
- The domain for each student has already been decided and the document is attached.

#### **Parameters of evaluation:**

- 1. Content (10 marks),
- 2. Communication skills (10marks),
- 3. Confidence (5 marks),
- 4. Action plan (5 marks).

**Maximum Marks: 30** 

#### **Guidelines:**

- 1. Every student is supposed to be in proper formal/presentable attire.
- 2. Identity cards are mandatory
- 3. Absenteeism on the day of CA will lead to zero marks
- 4. Sit according to your roll number
- 5. Students are encouraged to be creative and authentic

- 6. Students are strictly advised against copying the content from fellow classmates.
- 7. CA will be conducted in both Lecture and Tutorial classes

## **Full Stack Developer-**

### **Job Description:**

- \* Building dynamic web applications using PHP, MySQL, NGINX, HTML5, etc.
- \* Solving problems, bugs, and compatibility issues.
- \* Troubleshoot, test and maintain the core product software and databases to ensure strong optimization and functionality.
- \* Develop and deploy new features.
- \* Introduce the latest technologies and influence code development methodologies.
- \* Collaborate in requirements definition, prototyping, design, coding, testing and deployment.
- \* Good knowledge of Smarty template engine
- \* Knowledge of object-oriented PHP programming
- \* Understanding the fully synchronous behaviour of PHP
- \* Understanding of MVC design patterns
- \* Integration of multiple data sources and databases into one system
- \* Familiarity with limitations of PHP as a platform and its workarounds
- \* Creating database schemas that represent and support business processes and generate real time reports with existing data
- \* Understanding fundamental design principles behind a scalable application

Requirements: Experience with PHP, MySQL, HTML5, CSS3, AJAX, JavaScript, jQuery.

### **Associate Software engineer**

### The Position

We are looking for an enthusiastic software developer to join our experienced Technology team. You will report directly to the development manager and assist with all functions of software coding and design. Your primary focus will be to learn the codebase, gather user data, and implement it in the app development as planned by the senior developers.

#### **Responsibility:**

- \* Assisting the development manager with all aspects of software design and coding.
- \* Attending and contributing to company development meetings.
- \* Learning the codebase and improving your coding skills.
- \* Working on minor bug fixes.
- \* Monitoring the technical performance of internal systems.
- \* Responding to requests from the development team.

#### Requirements

- \* Bachelor's degree in computer science.
- $\mbox{\ensuremath{^{\ast}}}$  Working knowledge of any of these programming languages C++, Java, Javascript, Python
- \* Knowledge of database schema design and SQL
- \* Strong knowledge of Algorithms and Data Structures.
- \* Ability to learn new software and technologies quickly.
- \* Ability to follow instructions and work in a team environment.
- \* Excellent communication and interpersonal skills.

# **Software Engineer-**

# 1) The DevOps Engineer will be involved in activities like:

- \*\* Building DevOps CI/CD pipeline using relevant tools
- \*\* Experience with systems and IT operations
- \*\* Performing frequent, incremental code testing and deployment
- \*\* Build various version of scripts/codes and release them on time, maintain source repositories, different branches
- \*\* Monitor the application, quickly resolve if any issue on production environments
- \*\* Involve in Release Management, Source code management, Software configuration management.

### 2) Skills Required:

### a) Skill set 1: Java/J2EE

- \*\* Define user requirements for development or improvement of software solutions
- \*\* Design technical solutions and perform feasibility studies
- \*\* Innovate: Think out of the box and practice innovation in his/her daily tasks. Propose and develop innovative solutions to the problems.
- \*\* Propose viable technical solutions to Product Management and users for validation
- \*\* Conduct unit, package and performance tests of the software and ensure a level of quality
- \*\* Design and implement databases as necessary
- \*\* Produce software documentation for the application and issue it
- \*\* Support the end user in the Production phase by debugging existing software solutions in response to Problem Tracking Records and Change Requests issued from Product Management or Product Definition

### b) Skill set 2: Java/UI

- \*\* JOuery/ExtJS/YUI/DOJO or a similar JS framework
- \*\* DataBase, ClearCase, WebLogic, Ant/Maven etc
- \*\* JavaScript, OOJS CSS, HTML, AJAX, DOM, JSPs etc
- \*\* Core Java/ J2EE experience is desirable

#### c) Skill set 3: C/C++

- \*\* Define user requirements for development or improvement of software solutions
- \*\* Design technical solutions and perform feasibility studies
- \*\* Innovate: Think out of the box and practice innovation in his/her daily tasks. Propose and develop innovative solutions to the problems.
- \*\* Propose viable technical solutions to Product Management and users for validation
- \*\* Conduct unit, package and performance tests of the software and ensure a level of quality
- \*\* Design and implement databases as necessary
- \*\* Produce software documentation for the application and issue it

\*\* Support the end user in the Production phase by debugging existing software solutions in response to Problem Tracking Records and Change Requests issued from Product Management or Product Definition

### d) Technical/Technical Skills

- \*\* UNIX/ Linux, shell scripting
- \*\* Strong knowledge of OOPS and coding with C++, design-patterns.
- \*\* Database modeling, Oracle, Oracle BI, optimization techniques.
- \*\* Good knowledge of development of a distributed system and of distributed algorithms
- \*\* Experience of Oracle environment and optimization techniques is a plus
- \*\* Experience in multithreaded programming is a plus

# Specialist Programmer/Digital Specialist Engineer-Specialist Programmer (SP)

An entry-level role in the Power Programmer stream at Infosys. Specialist Programmers are programming 'polyglots' who are experts in deep programming, full-stack capabilities, high complexity coding, developing rapid applications/platforms, and building technology-enabled solutions. The compensation for this role is **INR 9.5 lakhs per annum.** 

# **Digital Specialist Engineer (DSE)**

This role requires full stack capabilities and skills like analytics, artificial intelligence and automation, big data, cloud, cyber security, data consulting, and digital commerce, interaction, and marketing. Digital Specialist Engineers work across business units of Infosys on special projects to develop integrated applications and to bring agility in development with DevSecOps culture. The compensation for this role is **INR 6.25 lakhs per annum.** 

# Trainee - Frontend Development(React Js) / Backend Development(Node Js)-

# Frontend Developer (React JS)

#### 1) Job Roles:

- \*\* Web developer responsibilities include building our website from concept all the way to completion from the bottom up, designing everything from the home page to site layout and function using react js.
- \*\* Strong problem solving and decision making skills.
- \*\* Understanding of all major browsers and the special considerations required for various quirks.
- \*\* A commitment to code quality every engineer on our team gives and receives feedback on pull requests and writes unit tests, and we have regular team syncs to discuss the state of our architecture, patterns and processes and what we can improve.

#### 2) Skills:

- \*\* Proficiency in JavaScript along with DOM knowledge and logical ability to code in JavaScript.
- \*\* Thorough understanding of React.js along with core principles.
- \*\* Experience with Redux Library is advantageous.
- \*\* Familiarity with new specifications of ES 6
- \*\* Experience with data structure libraries (e.g., Immutable.js)
- \*\* Knowledge of Isomorphic JavaScript is a plus.

- \*\* Familiarity with RESTful APIs.
- \*\* Knowledge of modern authorization mechanisms, such as JSON Web Token (JWT).
- \*\* Experience with common front-end development tools such as Babel, Webpack, NPM, etc.

# **Backend Developer (NODE JS)**

#### 1) Job Roles:

- \*\* Work as part of a team developing applications and services using Agile development methods
- \*\* Contribute to team and organizational improvements in process and infrastructure
- \*\* Build customer-facing UI and back-end services for payment processing administration and management
- \*\* Code, teste and operate node.js based services
- \*\* Effectively use tools and ingenuity to identify and fix defects before they become a problem
- \*\* Node.js Developer requirements and qualifications
- \*\* In-depth knowledge of Node.js
- \*\* Hands-on experience with HTML, CSS, and AJAX, Axios
- \*\* Development experience designing object-oriented JavaScript and SVG
- \*\* Applicable knowledge of web libraries and frameworks such as AngularJS, Polymer, and Closure
- \*\* Familiarity with the whole web stack, including protocols and web server optimization techniques
- \*\* Strong analytical skills and problem solving aptitude
- \*\* Attentive to details.