Software Requirement Specification

for

JEE

Mini Project

Employee Maintenance System

Document Control

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| Author(s): | **Name** | | **Title** |
| GROUP3 –  Saurabh Gupta  Ashok Sharma  Lalak Garg  Shruti Agrawal  Rajat Kumar  Vishal Zadoo | | FRESHER POOL |
| Reviewer(s): | **Name** | | **Title** |
| Amit Shristava  Vishali Shristava | |  |
|  | |  |
| Distribution: | **Name** | | **Title** |
| [Ashok.a.sharma@capgemini.com](mailto:Ashok.a.sharma@capgemini.com)  [Saurah.i.gupta@capgemini.com](mailto:Saurah.i.gupta@capgemini.com)  [Lalak.garg@capgemini.com](mailto:Lalak.garg@capgemini.com)  [Shruti.a.agrawal@capgemini.com](mailto:Shruti.a.agrawal@capgemini.com)  [Vishal.zadoo@capgemini.com](mailto:Vishal.zadoo@capgemini.com)  [Rajat.d.kumar@capgemini.com](mailto:Rajat.d.kumar@capgemini.com) | | All Designation(s) in GROUP3 and Reviewer(s) |
| [Vishali.shrivastava@capgemini.com](mailto:Vishali.shrivastava@capgemini.com) | |  |
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# Introduction

This document outlines a functionality of mini project for the JEE LOT. The project is to develop an Employee Maintenance System for an organization. This document contains the work flow of the add functionality and gives guidelines on how to build the functionality gradually.

## Setup Checklist for Mini Project

Minimum System Requirements

* Intel Pentium 90 or higher (P166 recommended)
* Microsoft Windows 95, 98, or NT 4.0, 2k, XP, Windows 7
* Memory: 32MB of RAM (64MB or more recommended)
* Internet Explorer 6.0 or higher
* Oracle 9i client and access to oracle 9i server
* JDK 8
* Eclipse Luna
* JUnit 4.0, MAVEN
* WildFly

## Objective

Development of Employee Maintenance System used for maintenance of an employee details in an organization. This SRS aims at explaining Add functionality of admin.

## Abstract of the Functionality

This functionality is useful in adding a new employee. Only an admin right validated user can use this functionality. Adding involve several data fields out of which few are required few are optional. Validations are applied on both client and server side. Thus only a valid employee can be added to the data base.

## Functional components of the project

Add individual employee details by accepting all the field values from end user as listed below and inject the values into database table if data are valid else display an appropriate error messages.

* + - Employee ID has to be a 6 digit number (with no decimals) and cannot start with a ZERO (Cannot be empty)
    - First and Last name should be alphabets only (Cannot be empty)
    - Date of joining and Date of birth need to undergo regular date validation (DD-MMM-YY) - (Cannot be empty)
    - The date of joining should be > Date of birth and the employee’s age has to be >=18 and <= 58 as an eligibility criteria for employment
    - Department name values has to be populated from database
    - Grade has to be one of the following values: (Cannot be empty)
      1. M1
      2. M2
      3. M3
      4. M4
      5. M5
      6. M6
      7. M7
    - Designation can be alphabets limited to 50 characters: (Can be empty)
    - Gender has to be one of the following values: (Cannot be empty)
      1. Male
      2. Female
    - Basic should be numeric only and the basic has to be validated against a salary band for each grade
    - Marital Status can be one of the following values: (Cannot be empty)Z
      1. Single
      2. Married
      3. Divorced
      4. Separated
      5. Widowed
    - Home Address (Can be alphanumeric and optional)
    - Personal Contact Number (Can be alphanumeric and optional)

## Technology used:

* + - *Front End & Web Components:–* 
      1. HTML/JavaScript
      2. Servlets
      3. JSP
    - *Business Logic Components and Services :-* 
      1. Java Beans
    - *Application Servers :-* 
      1. WildFly
    - *Databases:-*
      1. Oracle 9i

# Implementation

## Summary of the functionality to be built:

The objective is developing an admin panel which will get access through the login module and after the access he/she will have a functionality of adding a new Employee to the database. The employee which is to be added has his/her details entered through a form which has a number of entries. Some of the fields are mandatory and some are optional. The data from the .jsp form will be transferred to the service layer where all the necessary validations are done accordingly. If the validations are according to the format specified then the employee is registered else the error page is shown with the error message. After the service layer validations the data is transferred to the DAO layer where we use necessary method to store the data in the database. After successful transaction the data is stored in the database and a success page is shown to the user.

## Support on the functionality to be built:

The functionality will have following supporting uses:

* 1. Develop the following screens:
     1. Add Employee Screen: This screen allows the Admin to add employee details in the system.
     2. Navigate to home page at any point of time
     3. Logoff from the application at any point of time
  2. Here we need to develop the user interface using HTML and document the flow of your application including the images of html page in a word document. The screens/web pages should include the fields as per the functionality mentioned above. Also, include client-side validations using JavaScript in each of these screens
  3. Create the following database table..
     1. Employee: This will contain the details of an employee who have joined in an organization.
  4. The structure of the above listed table is as follows

**Employee:** Emp\_ID VARCHAR2(6), Emp\_First\_Name VARCHAR2(25), Emp\_Last\_Name VARCHAR2(25), Emp\_Date\_of\_Birth DATE, Emp\_Date\_of\_Joining DATE, Emp\_Dept\_ID int, Emp\_Grade VARCHAR2(2), Emp\_Designation VARCHAR2(50), Emp\_Basic int, Emp\_Gender VARCHAR2(1), Emp\_Marital\_Status VARCHAR2(1), Emp\_Home\_Address VARCHAR2(100), Emp\_Contact\_Num VARCHAR2(15)

* 1. Relevant Use case and Class diagrams for the functionality.

# 3 Flow and package structure

Application Architecture: Discuss this with you on regular basis.

