

Stay positive and stay motivated. Believe in your abilities, trust your preparation, and approach this exam with a can-do attitude. Your hard work will pay off, and you will come out stronger and more confident in your Java skills.

General Instructions

1. Choose either Java SE or Java EE.
2. Select a frontend technology of your choice (Swing, JavaFX, React, HTML).
3. For the backend, consider using Java, Spring MVC/Spring Boot/JDBC, or Hibernate.
4. For the database, you can use either the MYSQL or MSSQL database schema that we have provided for you. You can add any constraint as you need
5. Submit your project and assess your level of skill and talent.

Good luck with your project!

Question No 01 (30 minutes)

Calculate the radius of any given circle

Equation of the circle is $x^2 + y^2 + 2gx + 2fy + c = 0$ (when g, f, c are constant)

Radius = $\sqrt{(g^2 + f^2 - c)}$; $g^2 + f^2 - c > 0$

The screenshot shows a Java Swing application window titled "Radius calculator of any given Circle". At the top, there are standard window controls for minimize, maximize, and close. Below the title bar, the window contains a text input field for the equation coefficients g, f, and c. The equation is displayed as $x^2 + y^2 + 2 \boxed{g}x + 2 \boxed{f}y + \boxed{c} = 0$. To the right of the input field is a "Calculate" button. Below the input field, there is a label "Radius =" followed by an empty input field for the calculated radius.

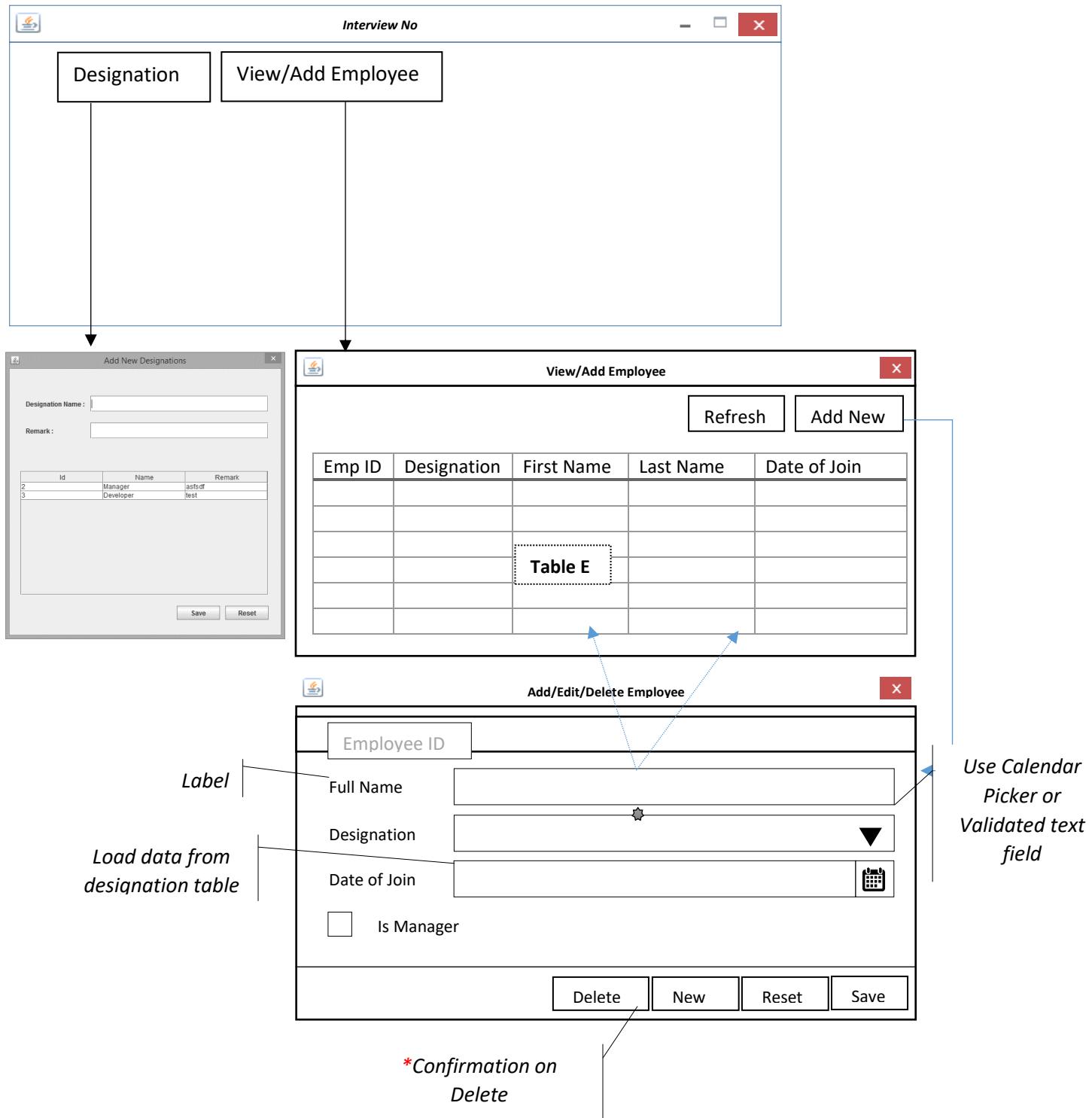
Question No 02

(4H)

Please refer following model to create the Use Interface (UI) Using **ANY** for frontend formwork and **Java** Backend,

For the database we recommend MYSQL, but you can use any database.

- NOTE** Your interfaces do not have to be this way. But all the components here must be included



Please complete following Functions

1. Save Employee details in to *employee* table
2. Except Employee ID Edit All Employee details by double-clicking the rows of **Table E**
3. Delete Selected Employee (On Confirmation)

✿ Please split full name by first space (" ") and insert first part to First Name and remaining to Last Name.