

Scenario 1: Bank Loan Approval System

Class Name: LoanApproval

Method Signature:

```
public String checkLoanApproval(double salary, int creditScore)
```

Return Type: String (Loan Status)

Scenario:

A bank wants to approve loans based on a customer's salary and credit score.

- If the salary is above **80,000** and the credit score is above **750**, return "Loan Approved Immediately" .
 - If the salary is between **50,000 and 80,000** and the credit score is between **650 and 750**, return "Loan Approved with Higher Interest Rate" .
 - If the salary is between **30,000 and 50,000** and the credit score is between **500 and 650**, return "Co-signer Required" .
 - Otherwise, return "Loan Rejected" .
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Scenario 2: University Admission Criteria

Class Name: UniversityAdmission

Method Signature:

```
public String evaluateAdmission(int marks, boolean sportsAchievement)
```

Return Type: String (Admission Status)

Scenario:

A university grants admission based on entrance exam scores and extracurricular activities:

- If marks are **95+**, return "Admitted with Scholarship" .
 - If marks are **85-94**, return "Admitted without Scholarship" .
 - If marks are **70-84** and the student has **sports achievements**, return "Admitted under Sports Quota" .
 - If marks are **60-69**, return "Interview Required" before admission.
 - Otherwise, return "Admission Rejected" .
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Scenario 3: Employee Bonus Calculation

Class Name: BonusCalculator

Method Signature:

```
public double calculateBonus(int experience, int rating, double salary)
```

Return Type: double (Bonus Amount)

Scenario:

A company gives a **performance-based** yearly bonus:

- If experience is **5+ years** and rating is above **9**, return **50%** of salary .
- If experience is **3-5 years** and rating is between **7-9**, return **30%** of salary .
- If experience is **1-3 years** and rating is between **5-7**, return **10%** of salary .

- Otherwise, return `0` (No Bonus).

Scenario 4: Car Insurance Premium Calculation

Class Name: `InsurancePolicy`

Method Signature:

```
public String calculatePremium(int age, int experience)
```

Return Type: `String` (Premium Category)

Scenario:

An insurance company calculates car insurance premiums:

- If age is above `50` and experience is `10+ years`, return `"Lowest Premium"`.
- If age is `30-50` and experience is `5+ years`, return `"Moderate Premium"`.
- If age is `18-30` and experience is less than `5 years`, return `"Highest Premium"`.
- Otherwise, return `"Not Eligible for Insurance"`.

Scenario 5: Movie Ticket Pricing System

Class Name: `MovieTheater`

Method Signature:

```
public double getTicketPrice(int age)
```

Return Type: `double` (Ticket Price)

Scenario:

A cinema has different ticket prices based on **age**:

- If age is below `5`, return `0.0` (Free Ticket).
- If age is between `5-12`, return `$5.0`.
- If age is between `13-60`, return `$10.0`.
- If age is above `60`, return `50% of the standard price ($5.0)`.