

1. General Association: Employee and Company

Problem:

Create a `Company` class and an `Employee` class. A company can have many employees. Write a program to add employees to a company and display their details.

Expected Output:

```
Company: TechCorp  
Employee: Alice, Designation: Developer  
Employee: Bob, Designation: Tester
```

2. Aggregation: Library and Books

Problem:

A `Library` contains multiple `Book` objects. Write a program to add books to a library and display the library's collection.

Expected Output:

```
Library: City Library  
Book: Effective Java, Author: Joshua Bloch  
Book: Clean Code, Author: Robert Martin
```

3. Composition: Car and Engine

Problem:

A `Car` has an `Engine`. Without an engine, the car cannot exist. Write a program to create a car and associate it with an engine.

Expected Output:

```
Car Model: Tesla Model 3  
Engine Type: Electric
```

4. One-to-One Association: Person and Passport

Problem:

A `Person` has a unique `Passport`. Write a program to associate a person with their passport and display the details.

Expected Output:

```
Person: John Doe  
Passport Number: A123456, Expiry Date: 2030-12-31
```

5. One-to-Many Association: Department and Employees

Problem:

A `Department` can have multiple employees. Write a program to add employees to a department and display their details.

Expected Output:

Department: IT
Employee: Alice, Position: Developer
Employee: Bob, Position: Tester