

Question 1: Car Showroom System

A car showroom maintains details of cars. Each car has a **model name** and **price**, which are unique to them. However, the **showroom name** is common for all cars.

Your task:

1. Define a class `Car` with:
 - A **static variable** `showroomName` (common for all cars).
 - Two **instance variables** `modelName` and `price` (unique for each car).
 - A method `displayDetails()` to print the car's details.
2. In `main()`, update the showroom name before creating car objects.

Expected Output:

```
Showroom Name : Elite Motors
Car Model : Tesla Model S
Car Price : 80000
-----
Showroom Name : Elite Motors
Car Model : BMW X5
Car Price : 75000
-----
```

Question 2: Library Book Records

A library keeps records of books. Each book has a **title** and **author**, but all books belong to the **same library**.

Your task:

1. Define a class `Book` with:
 - A **static variable** `libraryName` (shared by all books).
 - Two **instance variables** `title` and `author` (unique for each book).
 - A method `displayInfo()` to print book details.
2. In `main()`, update the library name before creating book objects.

Expected Output:

```
Library Name : City Public Library
Book Title : The Great Gatsby
Book Author : F. Scott Fitzgerald
-----
Library Name : City Public Library
Book Title : 1984
Book Author : George Orwell
-----
```

Question 3: Mobile Store System

A mobile store sells different phone models. Each phone has a **brand** and **price**, but they are all sold by the **same store**.

Your task:

1. Define a class `Mobile` with:
 - A **static variable** `storeName` (same for all mobiles).
 - Two **instance variables** `brand` and `price` (unique per phone).
 - A method `showDetails()` to print phone details.
2. In `main()`, update the store name before creating mobile objects.

Expected Output:

```
Store Name : Tech World
Mobile Brand : Apple
Mobile Price : 1200
-----
Store Name : Tech World
Mobile Brand : Samsung
Mobile Price : 900
-----
```

Question 4: Hospital Patient Management

A hospital maintains records of patients. Each patient has a **name** and **age**, but all patients are treated at the **same hospital**.

Your task:

1. Define a class `Patient` with:
 - A **static variable** `hospitalName` (shared by all patients).
 - Two **instance variables** `patientName` and `age` (unique per patient).
 - A method `printDetails()` to display patient details.
2. In `main()`, update the hospital name before creating patient objects.

Expected Output:

```
Hospital Name : City Care Hospital
Patient Name : John Doe
Patient Age : 45
-----
Hospital Name : City Care Hospital
Patient Name : Emma Watson
Patient Age : 30
-----
```

Question 5: University Faculty Records

A university maintains records of its faculty members. Each faculty member has a **name** and **department**, but they all work at the **same university**.

Your task:

1. Define a class `Faculty` with:
 - A **static variable** `universityName` (shared by all faculty members).
 - Two **instance variables** `facultyName` and `department` (unique per faculty).
 - A method `showFacultyDetails()` to print faculty details.

2. In `main()`, update the university name before creating faculty objects.

Expected Output:

```
University Name : Stanford University
Faculty Name : Dr. Robert Brown
Department : Computer Science
-----
University Name : Stanford University
Faculty Name : Dr. Lisa Green
Department : Physics
-----
```