

Q2-)Design a class system to represent employees, engineers, and managers in a company. Write a Python program that meets the following requirements:

**1. Base Class: Employee**

- The `__init__` method should take name, position, and salary and store them.
- The `apply_raise` method should take a rate (percentage) and apply that raise to the salary.
- The `__str__` method should return the employee details in the following format: "Employee: [name], Position: [position], Salary: [salary]".

**2. Subclass: Engineer**

- Override the `apply_raise` method to always add an extra 5% to the raise rate. For example, if a 10% raise is intended, the engineer's salary should increase by 15% in total.

**3. Subclass: Manager**

- The `__init__` method should take name, position, salary, and optionally a team list (team). If the team is not provided, initialize it as an empty list.
- The `add_to_team` method should allow adding an employee to the team.
- The `__str__` method should return the manager details including the salary and the number of team members in the following format: "Manager: [name], Position: [position], Salary: [salary], Team Size: [team\_size]".

**4. User Interaction:**

- Prompt the user for the details of an employee (Employee), an engineer (Engineer), and a manager (Manager).
- Ask the user for raise rates to update the employee and engineer salaries.
- Add the employee and engineer to the manager's team.

**5. Output:**

- Print the updated employee and engineer details.
- Print the manager's details (name, position, salary, team size).

Example input:

```
Enter details for an Employee:
Name: John
Position: Technician
Salary: 5000

Enter details for an Engineer:
Name: Alice
Position: Senior Engineer
Salary: 8000

Enter raise rate for Employee (as a decimal, e.g., 0.10 for 10%): 0.10
Enter raise rate for Engineer (as a decimal, e.g., 0.10 for 10%): 0.10

Enter details for a Manager:
Name: Bob
Position: Project Manager
Salary: 15000
```

Output:

```
Updated Employee Details:
Employee: John, Position: Technician, Salary: 5500.00

Updated Engineer Details:
Employee: Alice, Position: Senior Engineer, Salary: 9200.00

Manager Details:
Manager: Bob, Position: Project Manager, Salary: 15000.00, Team Size: 2
```