PART 1: ENCAPSULATION CHALLENGE

Time: 30 minutes

Task: Design a class named ProjectEngineer that encapsulates the following responsibilities as one cohesive unit.

Responsibilities List:

• Approves material requests

• Schedules labor

• Assigns site tasks to workers

• Generates daily progress report

• Sends safety compliance checklist

• Coordinates with procurement team

• Records worker attendance

• Inspects completed work

Your Task:

1. Group related responsibilities inside the ProjectEngineer class.

2. Use headings, categories, or comments to logically organize tasks inside the class.

3. Write the class name and list/group its responsibilities below. Your Encapsulated Class

ProjectEngineer

Design: Class Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grouped Responsibilities:

Human Resource:

* Schedules labor
* Generates daily progress report
* Records worker attendance

Foreman:

* Approves material requests
* Inspects completed work

Site Manager:

* Assigns site tasks to workers
* Sends safety compliance checklist

Coordinator:

* Coordinates with procurement team

Part 2:

|  |  |
| --- | --- |
| Module/Class Name | Responsibilities |
| Coordinator | Coordinates with procurement team |
| Task Assigner | Assigns site tasks to workers |
| Human Resource | |  | | --- | |  |  |  | | --- | | Schedules labor |   Generates daily progress report  Records worker attendance |
| Foreman | Approves material requests  Inspects completed work |
| Safety Manager | Sends safety compliance checklist |