King Fahad University of Petroleum and Minerals

Information and Computer Science Department

SWE316: Software Design and Construction (Term 241)

HomeWork#02

1/12/2024

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Task	Grade	Your Grade	Comments
Task #1: Software Design	60		
Task #2: Software Implementation	40		
Checklist and penalties:			
No Cover page with grade table		-10	☐
File name (report)		-05	☐
Not in PDF format		-10	☐
Total	100		

Class Diagram:

Uses

Employee

- name: String
- jobTitle: String
- salary: Double
- yearsOfExperience: int

+ getName() : String
+ getJobTitle() : String
+ getSalary() : double
+ getYearsOfExperience(): int
+ generateYearsOfExperienceReport(): String
+ generatePayReport(): String
+ changeHeader(String) : void
+ changeFooter(String): void

ReportFacad

- setting : ReportSetting

+ ReportFacad(): void
+ setReportHeader(String): void
+ setReportFooter(String) : void
+ GenerateReport(String, Employee) : String

1   Uses

1..*

MainApp

+ Main(): void
+ handleheaderAndFooterChange(Employee, Scanner):void

Uses

1   1

Uses   Uses

Generate report for

ReportSetting

- instance : ReportSetting
- reportHeader : String
- reportFooter : String

- ReportSetting() void
+ getInstance() : ReportSetting
+ getReortHeader() : String
+ getReportFooter() : String
+ setReportHeader(String) : void
+ setReportFooter(String) : void

1

1

Uses

ReportBuilder
<Abstract>

- reportSetting : ReportSetting

+ buildReport(employee: Employee) : String
+ addReportHeader() : String
+ addReportFooter() : String
+ createMainReportContent(employee: Employee) : String

1   1

Uses

MainReportContent
<Abstract>

+ makeMainReportContent(employee: Employee) : String

Extends   Extends

Extends

PayReportBuilder

+ createMainReportContent(employee: Employee) : String

YeasrOfExperienceReportBuilder

+ createMainReportContent(employee: Employee) : String

YearsOfExperienceReportContent

+ makeMainReportContent(employee: Employee) : String

PayReportContent

+ makeMainReportContent(employee: Employee) : String