The University of the West Indies, St. Augustine
COMP 3607 Object Oriented Programming II
2021/2022 Semester 1
Project Rubric

Total Score: 35%
Activity 1: 01%
Activity 2: 15%
Activity 3: 10%
Activity 4: 05%
Activity 5: 04%

Activity 1: Team Formation, Scope Selection (1%)

Students are required to form teams of exactly 3 members and select the team's scope by the deadline. Teams are expected to self-organise, specify choices on myElearning and then be present in lectures to confirm team compositions. Full points will be awarded if done without lecturer intervention. Incomplete teams will be assigned randomly to scope areas by the lecturer with half points awarded.

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Group formation	☐ Unassisted ☐ On-time	☐ Unassisted, ☐ Not on-time	☐ Assisted ☐ Not on time	☐ Not formed

Activity 2: Code Development (15%)

Teams are required to design and develop a working solution for the selected/assigned project scope. Essential features include:

- Locates and processes zero or more PDF files to be renamed in a particular directory
- Locates and extracts relevant data from a myElearning csv file
- Renames one or more PDF files according to convention (2) on project specification.
- Produces a list of missing submission files based on csv student list
- Original and renamed files are matched with a student correctly
- Test suite for evaluation of system performance
- Code storage on a GitHub repository

Additional features are left up to the team in order to produce a well rounded project.

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Essential Application Features				
Locates and processes zero or more PDF files to be renamed in a particular directory	☐Directory is named and located in project folder (no user intervention) ☐OS independent file path handling ☐ Handles zipped files ☐Ignores non-PDF files ☐ Identifies all valid PDF files in directory ☐Processes all PDF files in directory	☐Directory is named and located in project folder (no user intervention) ☐OS independent file path handling ☐Ignores non-PDF files ☐Processes all PDF files in directory	☐ Some user intervention needed e.g. Directory must be named or created ☐OS independent file path handling ☐Processes most of the PDF files in directory	☐Unclear data input required ☐OS dependent file path handling ☐Fails to locate PDF files ☐Fails to process PDF files

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Locates and extracts relevant data from a myElearning CSV file	☐Clear location for adding CSV into project structure ☐Naming convention for CSV is clear/ automatically handled ☐Correctly locates and uses the CSV file ☐OS independent file path handling ☐Handles error conditions properly (e.g multiple CSVs not allowed or checked for freshness)	☐Clear location for adding CSV into project structure ☐Naming convention for CSV is clear/ automatically handled ☐Correctly locates and uses the CSV file ☐OS independent file path handling	☐Some user intervention needed for locating CSV ☐Correctly locates and uses the CSV file ☐OS independent file path handling	☐Unclear how to add CSV into project ☐No structure ☐CSV not automatically located ☐OS dependent file path handling ☐Fails to locate and use the CSV file ☐ Error conditions not handled
Renames one or more PDF files according to convention (2)	☐Correct for scope ☐Complete for scope ☐ Flexible; handles variations	☐Mostly correct ☐Mosty complete	☐Partly correct ☐Partly complete	☐Incorrect ☐Incomplete ☐Missing
Produces a list of missing submission files based on CSV student list	☐ List stored in a file in project structure (version controlled) ☐Correct for scope ☐Complete for scope	☐ List stored in a file in project structure (version controlled) ☐Mostly correct ☐Mosty complete	☐List produced on screen ☐Partly correct ☐Partly complete	☐Incorrect ☐Incomplete ☐Missing list
Original and renamed files are matched with a student correctly	☐Correct for scope ☐Complete for scope	☐Mostly correct ☐Mosty complete	☐Partly correct ☐Partly complete	☐Incorrect ☐Incomplete ☐Missing
Test suite for evaluation of system performance	☐Test data supplied ☐ Running Instructions clear ☐ Complete test coverage ☐ Robust tests	☐Test data supplied ☐ Running Instructions given ☐ Mostly complete test coverage ☐ Good tests	☐Some test data supplied ☐ Running Instructions given ☐ Incomplete test coverage ☐ Trivial tests	☐No/trivial test data supplied ☐ No/vague running Instructions ☐ Incomplete test coverage ☐ Trivial/missing tests
	☐Well-tested ☐Extensible ☐Minimal/ no code smells	☐Mostly tested ☐Mostly Extensible ☐Some code smells	☐Somewhat tested ☐Partially Extensible ☐ Many code smells	☐Poorly tested ☐Inextensible ☐Rotten code ☐Missing code
Packaged as Maven project	☐ Maven build ☐ Complete fields ☐ Well named folders ☐ Modular	☐ Maven build ☐ Modular	☐ Project folders used ☐ Some organisation ☐ Mixed data and code files	☐ Disorganised ☐ Mixed src and class files
GitHub Repo	☐Solution code loaded on repo ☐Ordered packages ☐Neat, clean repo	☐Solution code loaded on repo ☐Ordered files, folders	☐Partial solution loaded on repo ☐Messy organisation	☐No solution code loaded on repo ☐Messy ☐Disorderly
Essential Design Features				
Application of Design Patterns (Singleton not allowed)	☐Two design patterns used in solution ☐Clear application ☐Correct application ☐Appropriate ☐Significant effects/ benefits of use	☐Two design patterns used in solution ☐Correct application ☐Appropriate ☐Some effects/ benefits of use	☐1-2 design patterns used in solution ☐Mostly correct application ☐Mostly appropriate ☐Minimal effects/ benefits of use	☐Inappropriate design patterns used in solution ☐Incorrect application ☐Unclear effects/ benefits of use ☐Missing patterns

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Conformance to SOLID principles	☐All applicable principles adhered to properly and thoughtfully	☐Some principles adhered to	☐Some principles adhered to ☐Some violated	☐Many principles violated, ignored
Qualitative Code Metrics Included (Optional)	☐Clear writing ☐Formatted well ☐Easy to follow/read	☐Mostly clear ☐Formatted well ☐Readable	☐Somewhat clear ☐Formatted ☐Readable	☐Unclear ☐Poorly formatted ☐Difficult to read
Code Quality	☐Well-tested ☐Extensible ☐Minimal/ no code smells	☐Mostly tested ☐Mostly Extensible ☐Some code smells	☐Somewhat tested ☐Partially Extensible ☐ Many code smells	☐Poorly tested ☐Inextensible ☐Rotten code ☐Missing code

Activity 3: (10%)

Teams are required to produce documentation for their codebase using techniques of their choice on their GitHub project's wiki (no PDFs to submit).

Code Documentation

Suggested Wiki Documentation Headings
- *Introduction*: Team Members, Project scope and purpose
- *Analysis*: Major requirements and use cases, Target students
- *Design*: Design patterns used, Conformance to SOLID, Class Diagram
- *Implementation*: How to run, Setup requirements
- *Testing and Evaluation*: Test Cases and Suites, Demo video link

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
API Documentation	☐ Complete JavaDoc Descriptions for ☐Class-level ☐Method-level ☐Field-level ☐Meaningful names ☐Well ordered ☐Complete ☐Correct	☐ Complete JavaDoc Descriptions for ☐Class-level ☐Method-level ☐Field-level ☐Good names ☐Well ordered ☐Mostly complete ☐Correct	☐ Partial JavaDoc Descriptions for ☐Class-level ☐Method-level ☐Field-level ☐Fair names ☐Fairly ordered ☐Mostly complete ☐Mostly correct	☐ No JavaDoc Descriptions missing for ☐Class-level ☐Method-level ☐Field-level ☐Poor names ☐Disordered ☐Incomplete ☐Incorrect
Design Documentation	☐Class diagram of solution ☐Properly labelled ☐Clear, crisp ☐Correct notation ☐ Correct design patterns applied to class diagram ☐Descriptions identify where design patterns applied in code ☐Annotated descriptions of code snippets or links to API methods, classes, fields ☐Benefits of using the pattern ☐explained correctly	☐Class diagram of solution ☐Labelled ☐Correct notation ☐ Design pattern(s) applied to class diagram ☐Descriptions mostly identify where design patterns applied in code ☐Annotated descriptions of code snippets or links to API methods, classes, fields ☐Benefits of using the pattern ☐explained, mostly correctly	☐Class diagram of solution ☐Partially labelled ☐Mostly correct notation ☐ Design pattern(s) applied to class diagram ☐incorrectly ☐incompletely ☐Descriptions mostly identify where design patterns applied in code ☐Annotated descriptions ☐Missing ☐Incomplete ☐Benefits of using the pattern ☐partly explained	☐Class diagram of solution ☐Missing ☐Incomplete ☐Incorrect ☐ Design pattern(s) applied to class diagram ☐incorrectly ☐incompletely ☐missing ☐Descriptions mostly identify where design patterns applied in code ☐Annotated descriptions ☐Missing ☐Incomplete
Writing Style	☐Error free (spelling, grammar) ☐Easy to follow	☐Mostly error free ☐Easy to follow	☐Careless errors ☐Somewhat easy to follow	☐Numerous errors ☐Difficult to follow

How to Write Good Object-oriented API Documentation:
https://www.monperrus.net/martin/how-to-write-good-API-documentation

Demo Video

Groups are required to produce a video summarising how the application's functionality was evaluated and how it is meant to be used. The following criteria should be met by the video:

- Identifies the scope area, and project team
- Illustrates how the test suite was used to test correct functionality
- Demonstrates with at least three use cases how the application produces recommendations for three different kinds of students
- Clear narration or explanations in the video, no fuzzy shots
- Uploaded to YouTube with a link submitted on myElearning as indicated

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Video Summary	☐ Sufficient length for comprehensive summary: ~7-10 mins	☐ Moderate Length for sufficient summary: ~5-7 mins	☐ Minimal Length for summary: ~4.5-5 mins	☐ Insufficient Summary: < 4.5 mins
Video Availability	☐Uploaded to YouTube ☐Link supplied ☐Successfully played and viewed			☐Not uploaded to YouTube ☐Submitted as a file on myElearning ☐Error in playback
Video Organisation (Layout, Flow)	☐Clear introduction ☐Clear scope area ☐Team identified ☐Smooth footage ☐Audio/narration crisp and articulate ☐Logical transitions ☐Clear flow/storyline	☐Good introduction ☐Scope area stated ☐Team identified ☐Good footage ☐Audio/narration easy to follow ☐Reasonable flow	☐Weak introduction ☐Scope area vague ☐Team identified ☐Fuzzy footage ☐Poor transitions ☐Insufficient narrative, subtitles	☐No introduction ☐Scope area missing ☐No transitions ☐Confusing flow ☐Incomplete ☐Difficult to follow
Use cases (Descriptions)	☐Three clear use cases (major operations identified) ☐Three distinct cases, different, interesting ☐Three correct recommendations/ outcomes produced ☐Success or Failure clearly described	☐2-3 use cases (repeated operations) ☐Three recommendations / outcomes produced ☐Success or Failure described	☐1-3 use cases (Repeated ops) ☐1-3 recommendations / outcomes produced ☐Success or Failure described partially	☐Poorly selected uses cases ☐Missing use cases ☐Input data unclear Descriptions are: ☐Insufficient ☐Incomplete ☐Incorrect
Test Suite Demonstration (Evidence)	☐ All code runs ☐ All test outcomes shown running ☐ Complete ☐ Easy to follow ☐ Correct test usage ☐ 3 examples	☐ Test code runs ☐ Most test outcomes shown ☐ Mostly complete ☐ Easy to follow ☐ Correct test usage ☐ 2-3 examples	☐ Some code shown ☐ Some test outcomes ☐ Correct test usage ☐ 2-3 examples	☐ No/poor evidence of testing ☐ No code shown ☐ Incorrect use of test suites ☐ Incorrect/poor examples

Activity 4: Team Video (5%)

Groups are required to produce a video summarising each member's experiences while working on the project. The following criteria should be met by the video:

- Identifies the scope area, and project team
- Within 2-3 minutes in length
- Each member must be visible at some point in the video and speak for 45-60 seconds.
- Members are required to talk, identify and discuss features of the project that was (a) most challenging (b) most gratifying and (c) most impactful for him/her.
- Clear audio, no shaking
- Uploaded to YouTube with a link submitted on myElearning as indicated

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Video Duration	☐Correct length: 2.5-3 mins	☐ Length: < 2.5 mins	☐ Length < 2 mins	☐ Length < 1.5 min
Video Quality	☐Steady ☐Clear audio ☐Good lighting ☐Well-edited ☐ Crisp footage	☐Some shaking ☐Mostly clear audio ☐Fair lighting ☐Fair editing ☐Good footage	☐Shaky ☐Audio inconsistent ☐Poor lighting ☐Editing could be better, choppy shots	☐Too shaky ☐Audio difficult to hear ☐Poor lighting/ resolution ☐Fragmented/ choppy/unedited
Video Availability	☐Uploaded to YouTube ☐Link supplied ☐Successfully played and viewed			☐Not uploaded to YouTube ☐Submitted as a file on myElearning ☐Error in playback
Video Organisation	☐Clear introduction ☐Topic area identified ☐Smooth transitions ☐Creative enhancements used	☐Good introduction ☐Topic area identified ☐Fair transitions	☐Missing introduction ☐Topic area identified ☐Poor transitions	☐No introduction ☐Topic area not identified ☐No transitions
Member presence	☐All members ☐Heard, Seen ☐ Appropriate duration ☐Identified in video (name/ student ID) ☐Missing member(s) accounted for	☐All members ☐Heard, Seen ☐Unbalanced time ☐Identified in video (name/ID)	☐Missing member(s) not accounted for ☐Heard or Seen ☐Insufficient time ☐Not Identified in video (name/ID)	☐Missing / no video
Content	☐Excellent, clear description of overall project ☐Each member identified project features that were: ☐challenging ☐gratifying ☐impactful ☐Crisp, articulate delivery	☐Good description of project ☐Most members identified features: ☐challenging ☐gratifying ☐impactful ☐Easy to follow	☐Weak description of project ☐Some members identified features: ☐challenging ☐gratifying ☐impactful ☐ Missing points	☐Project idea poorly presented ☐All members did not identify features ☐challenging ☐gratifying ☐impactful

Activity 5: Peer Review Forms and In-class Activity (4%)

Students are required to submit peer review assessments of their members' contributions using the supplied individual feedback forms.

Peer review exercises will be conducted of groups' work during lab session in Week 12. All members must be present.

Criteria	Performance Standard			
	Excellent	Good	Fair	Unsatisfactory
Peer Review (Individual)	☐All forms submitted for and by each member ☐Legible entries			☐None submitted
Teamwork	☐All members contributed OR ☐Sufficient attempts made to include members ☐Respectful, harmonious collaboration	☐Most members contributed ☐Attempts made to include members ☐Respectful collaboration	☐Some members contributed ☐Insufficient attempts made to include members ☐Poor collaboration	☐One member contributed ☐Unresponsive group ☐Discordant
In-Class Review Content	Posted on forum ☐Group animation video link ☐Research paper ☐On-time ☐No reminder needed	Posted on forum ☐Group animation video link ☐Research paper ☐Assistance required	Posted on forum ☐Group animation video link ☐Research paper ☐Assistance/ intervention required	☐Nothing posted on forum ☐Unresponsive group
In-Class Review Activity	☐All members present ☐All reviews completed ☐On-time	☐2-3 members present ☐ All reviews completed ☐Some on-time	☐1-3 members present ☐Most reviews completed ☐Some on-time	☐0-3 members present ☐No reviews/ some completed ☐Late