GENESIS - Learning Outcome & Mini-project Summary Report

LTTS
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L&T Technology Services

Ver. Rel. No.	Release Date	Prepared. By	Reviewed By	To be Approved	Remarks/Revision Details
1	01/03/2021	Name/PS No	Name/PS No	Module Owner Name	Comments
2	01/03/2021	Ankit Kumar Yadav (99003648)	Name/PS No	NA	NA
3	01/03/2021	Manu Nadar (99003711)	Name/PS No	NA	NA
4	01/03/2021	Omprakash harod (99003713)	Name/PS No	NA	NA

Contents

Miniproject -1 [Team]

Module/s

Modules linked to the mini project (Ex –python, SDLC and TDLC etc)

Topic and Subtopics

"Briefly list the core topics and subtopics being implemented and how"
We used python language to implement this project
In python, we use the various libraries are: -

1) **Pandas** (Python library used for Data Manipulation and Analysis)
2) **Matplotlib** (Library used to create Static and Interactive Visualization)
3) **Pygal** (API that enables us to build scalar vector graphs in variety of styles)
4) **Smtplib** (Used to handle sending email or routing email between the server)
5) **Openpyxl** (Used to read and write the data from the Excel sheets)
6) **Pytest** (Framework that allows to write test scripts using Python programming)
6) **Pylint** (Used to Check Code Quality & Bugs and Error)

Objectives & Requirements

Objectives:-

The primary objective of project is to create a desktop based application, where We need to do a detailed analysis of Pre-survey, Post survey, Pre-test marks, and post-test marks of every student, after analysis then we generated the spider report chart so that the Faculty can track the performance of every student, as well as every student can also track their own performance and Send auto generated email to every student along With faculty.

Introduction: -

We are doing data analysis for determining the performance of students and analyzing the field of improvement where the student needs to be Improved also determining the strength or weakness of the whole class in Different Modules.

Requirements: -

High level Requirements:

Requirement Id	Description
Student Score	Score of a student learning module
Average student	Average score of students in a module
Class max	Highest score of class in a module
Class min	Lowest score of class in a module
Student max	Maximum score of a student
Student min	Minimum score of a student

Lower-level Requirements:-

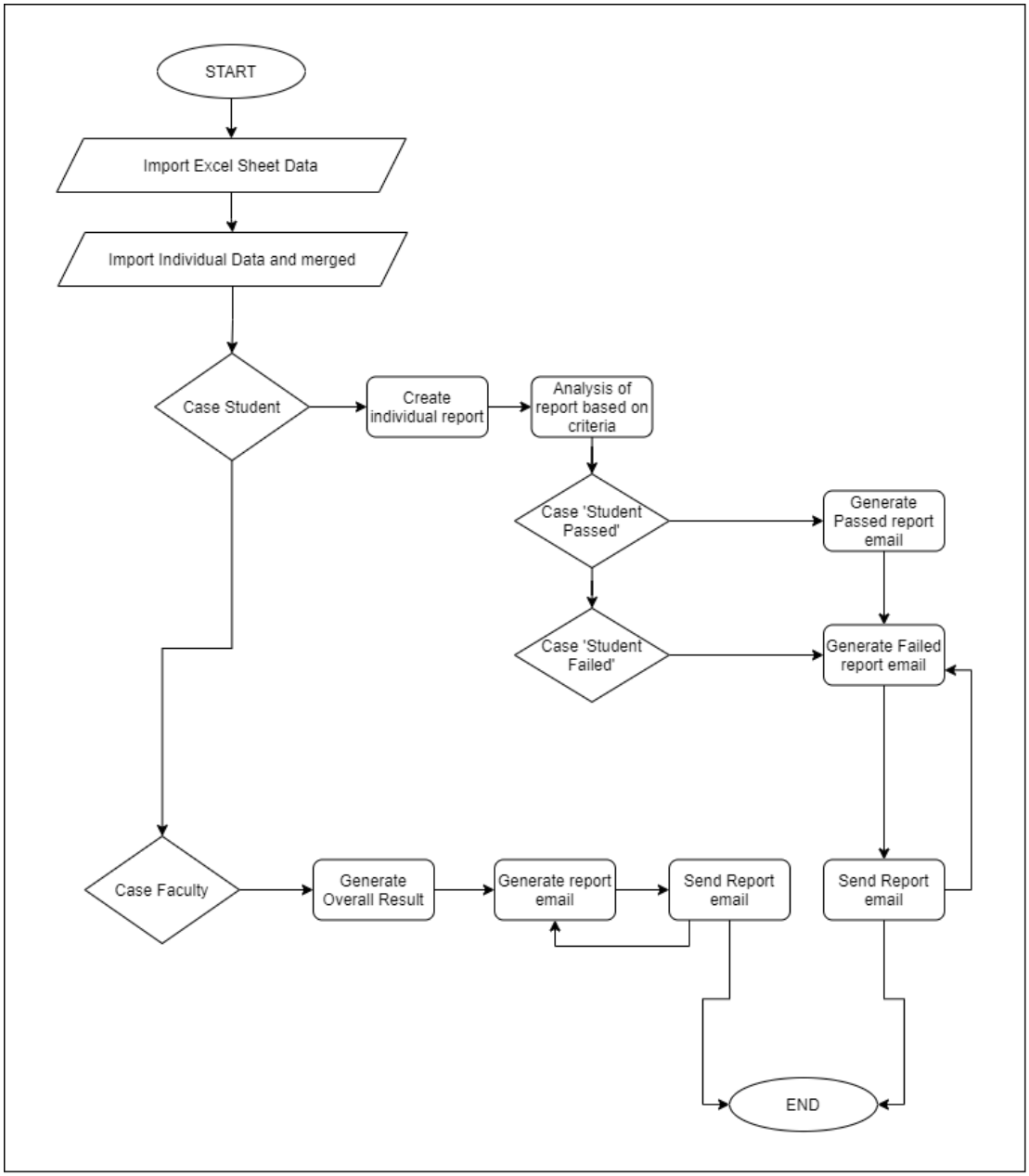
Requirement Id	Description
Top five	Top five score in a class
Bottom five	Bottom five score in a class

Design

"System Level and subsystem level UMLs – Structural and Behavioral Diagrams"

Structural Diagram

Data Flow Diagrams: -



High level Class Diagram: -

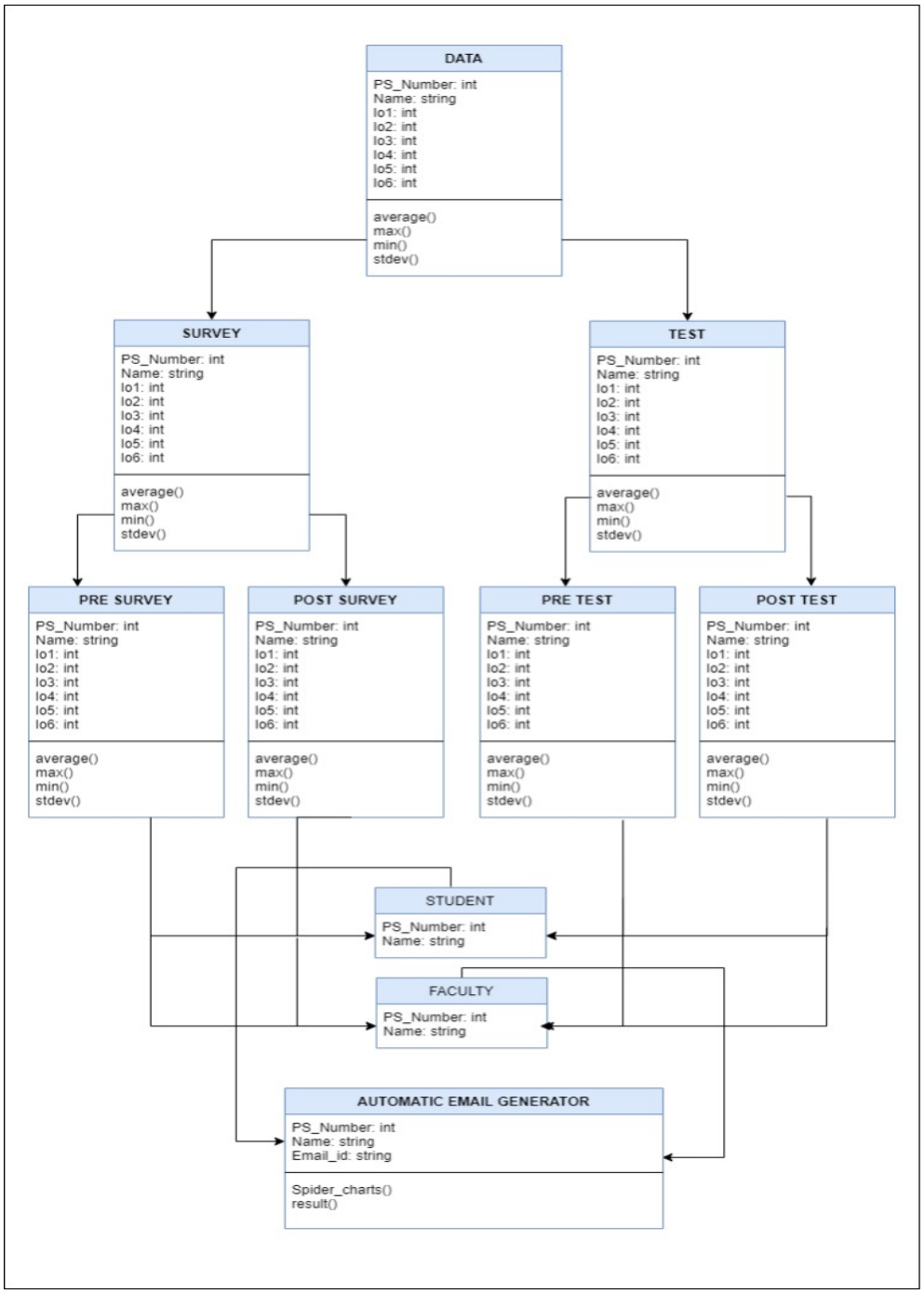


Figure 5 Structural UML (High level diagram)

Low Level Class Diagram

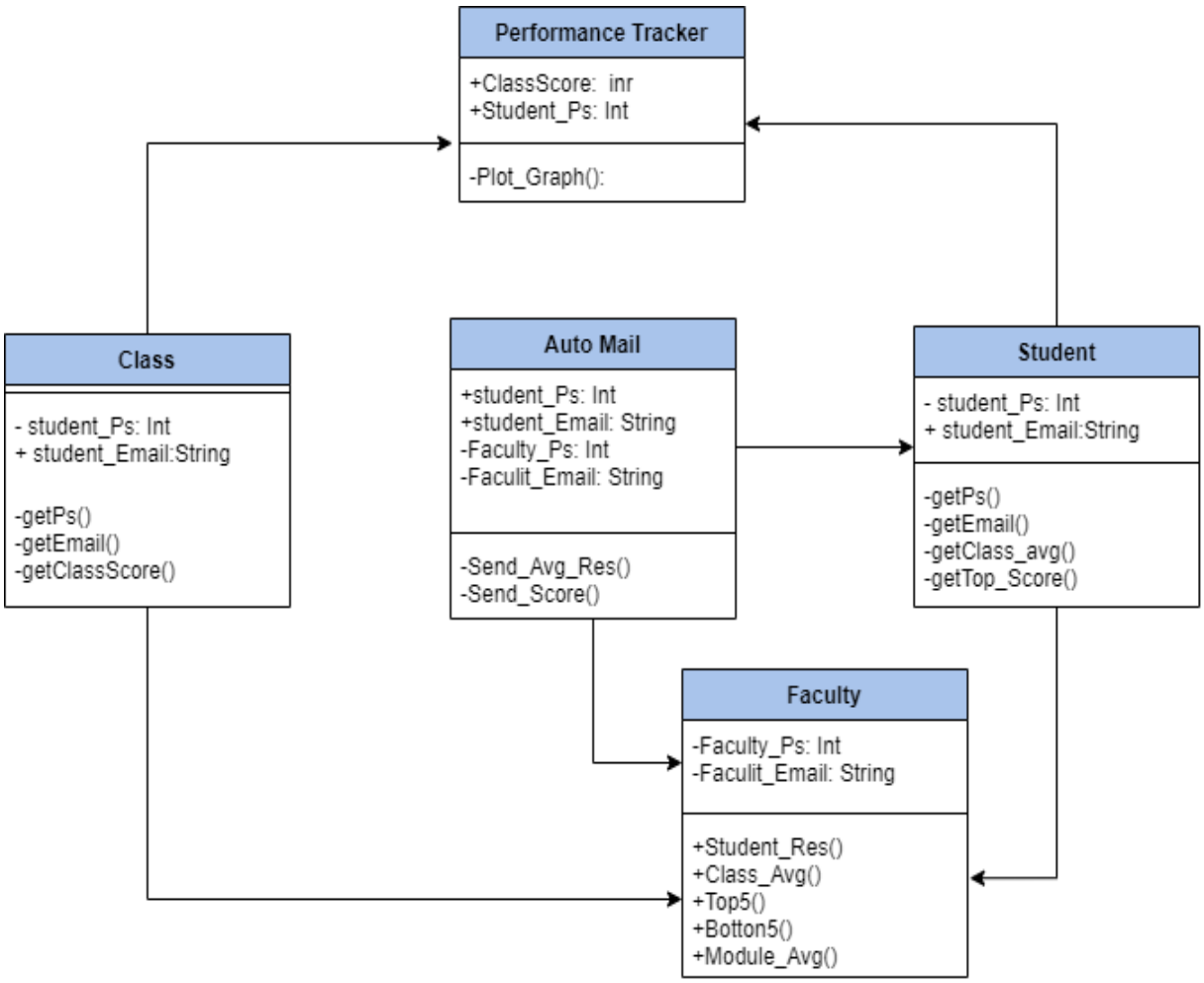


Figure 6 Structural UML (Low level diagram)

Behavioral Uml Diagram:-

High Level Use Case Diagram

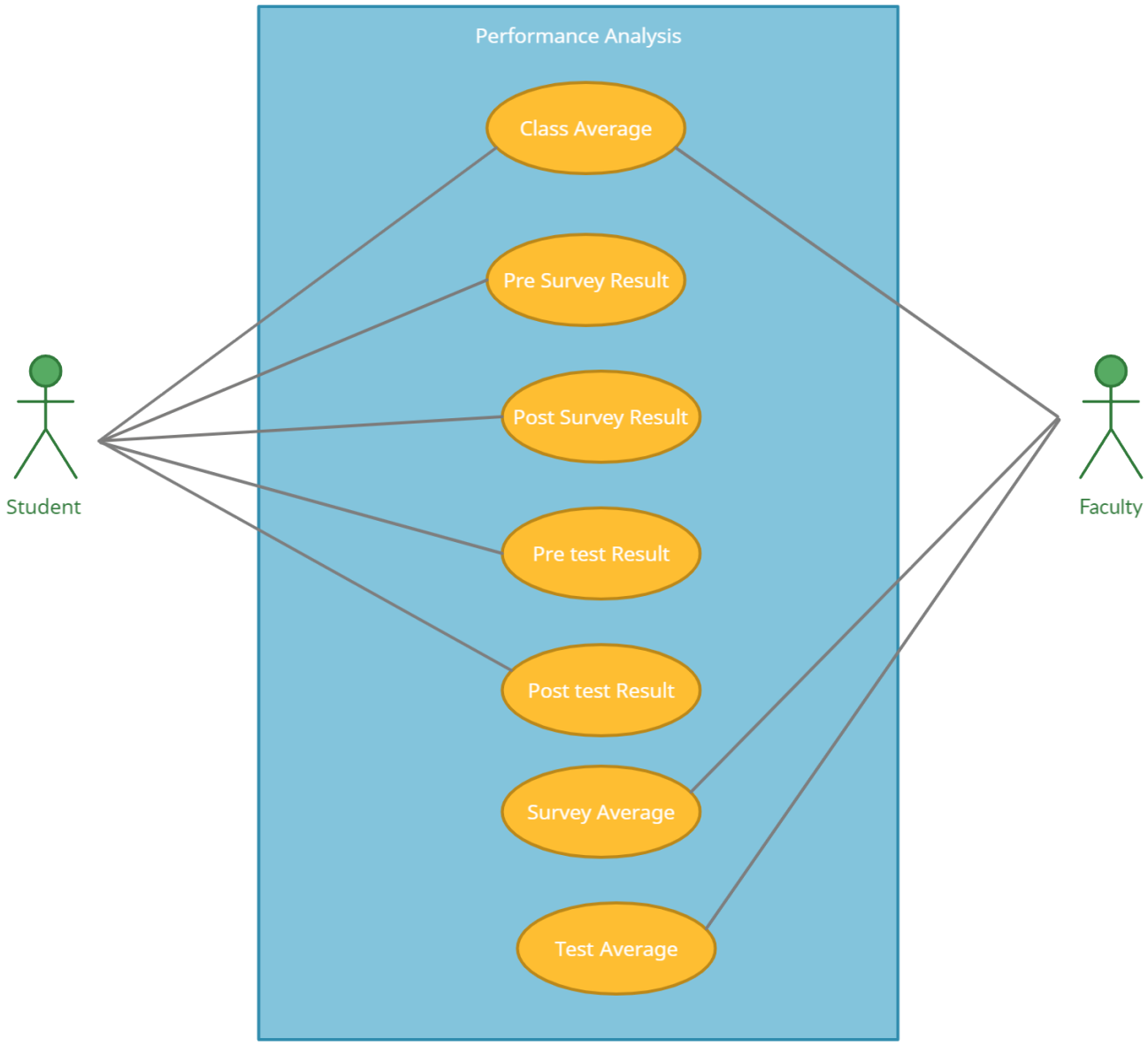


Figure 7 Behavioural UML (Low level Diagram)

Test Plan

(1) Low Level Test Plan

TEST ID	TEST DESCRIPTION	TEST INPUT	EXPECTED INPUT	ACTUAL OUTPUT
L_1	To check whether none of the fields should be empty	Empty value in the input module	Prompt message mandatory field missing	Consider missing value as 0
L_2	The length of the PS number should be of predefined size and does not contain any white space or special character (integer value only)	Value entered in the PS number like 990037 1	Prompt message PS number accept only integer values white space not allowed	Don't fetch the value of that PS number
L_3	E-mail ID should be in the perfect format i.e. xyz@gmail.com	Nadarm433@gail.com	Prompt message invalid E-mail ID	Don't be able to send the autogenerated E-mail
L_4	None of the PS number are same in the same excel sheet	PS number: - 99003789 99003789	Prompt message duplicate values not allowed	Don't be able to make a choice
L_5	None of the two students will have the same E-mail ID	E-mail ID: - Nadarm433@gmail.com	Prompt message duplicate values not allowed	Don't be able to make a choice

Figure 8 Low level Test plans

(2) High Level Test Plan

TEST ID	TEST DESCRIPTION	TEST INPUT	EXPECTED INPUT	ACTUAL OUTPUT
H_1	Check for the statically analysis that the all the operations should be performed perfectly i.e. average, maximum, minimum	Input module with all the necessary inputs	Statistical analysis for all inputs	Results according to given operations
H_2	To check whether the E-mail is triggered to all the stakeholders	Input module with all the E-mail ID's of the stakeholders	E-mail triggered to all the stakeholders present in the module	Mail not triggered to the students only send the mail to the stakeholders
H_3	To check if the results are not more than the input rows	Mark values of all the students	Output rows are always same as the input rows	Representation of the student ID's after input module integration

Figure 9 High level Test plans

Implementation Summary

"Section focused toward' s implementation aspects. Here it is only core summary while all the details are in the Git Repo

Note: The GitHub private repo should be documented (Readme.md files at each folder level)

Ensure code quality and clean code and description practices

Mandatory: To add the GitHub user - **stepin654321** as a contributor to the repo"

Video Summary

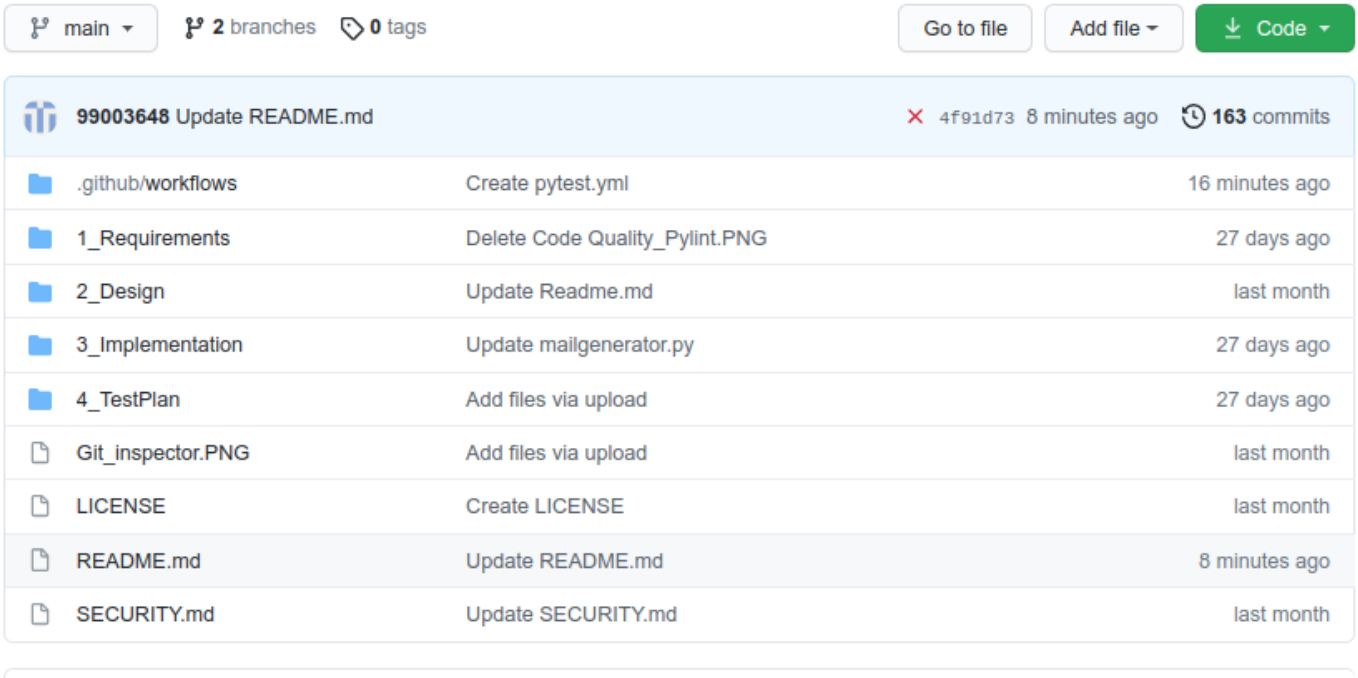
"Please upload a short video on the repo for the walkthrough of the project (Team/Individual) less than 7min and less than 30MB File Size. Start is the Standard opening slide with title of mini project + Team members followed by the walkthrough "

Git Link

Git Link: - https://github.com/99003713/AppliedSDLC_C3

Git Dashboard

"Screenshot of the GitHub Repo page with all the badges and summary"



Summary

"Brief summary on the overall implementation"

Git inspector summary

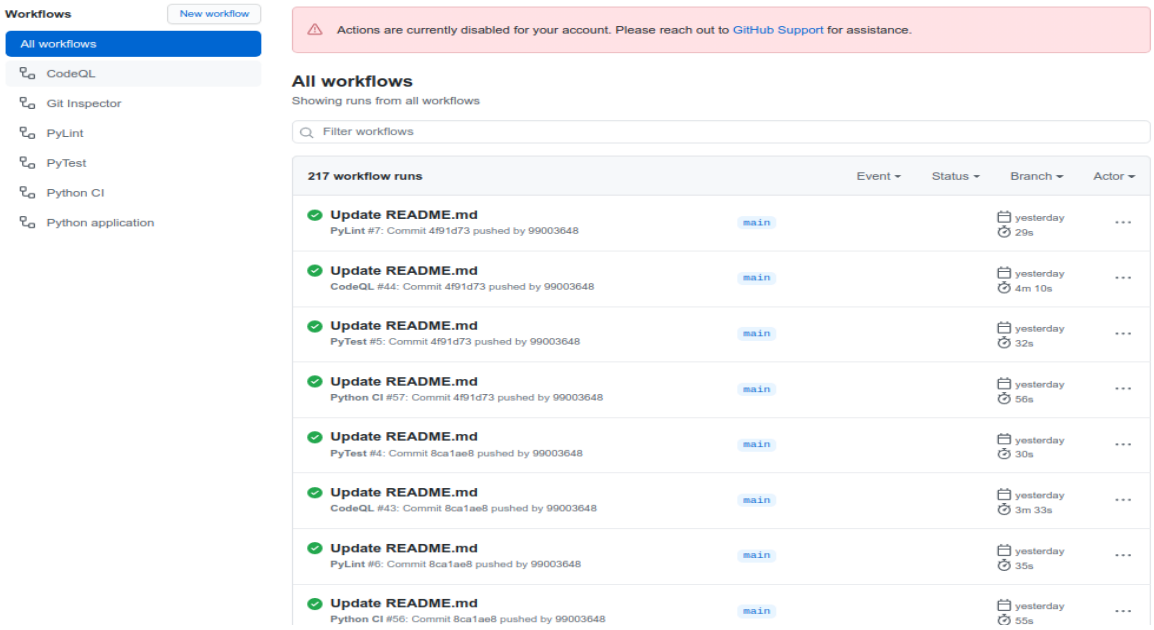
"In linux install gitinspector and Run the command –
gitinspector -H -l -m -T -w -r --grading --format=html > gitinsp.html
and upload the same to your repo and paste the snapshot in the report"

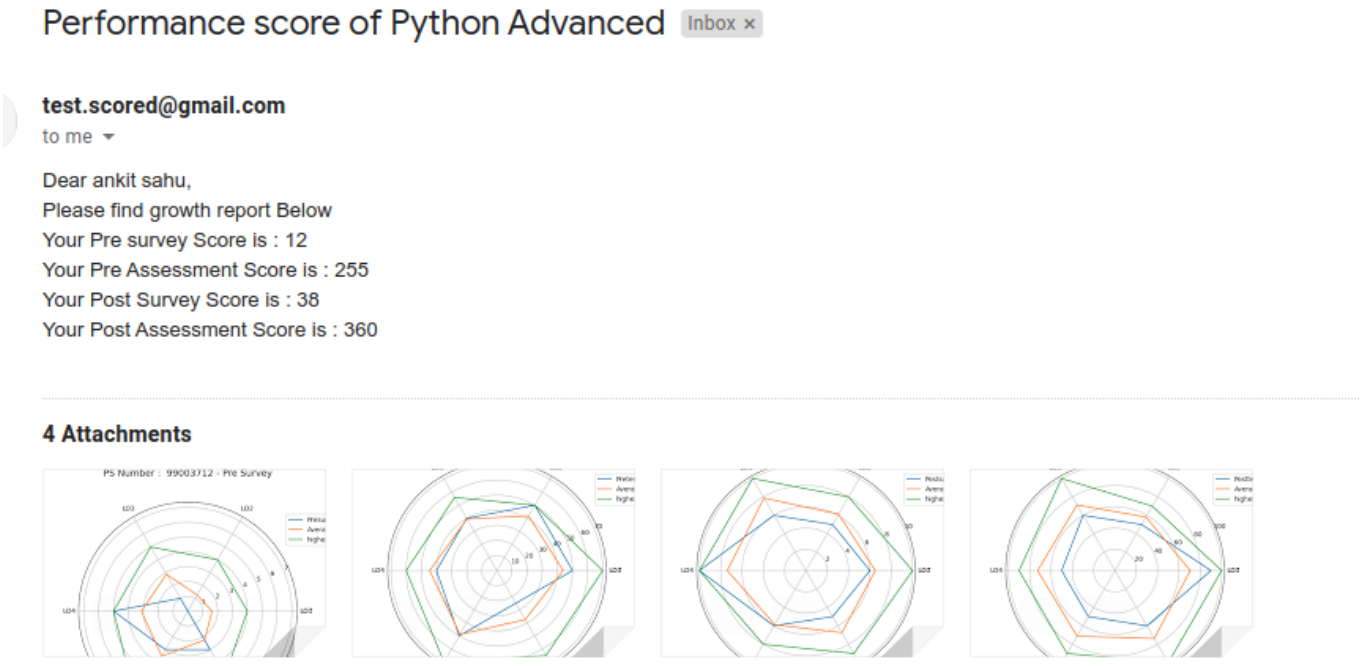
```
19  ============ Git Inspector ===========
20  Statistical information for the repository 'AppliedSDLC_C3' was gathered on
21  2021/03/01.
22  The following historical commit information, by author, was found:
23
24  Author                    Commits    Insertions      Deletions    % of changes
25  99003648                        1           123              0           13.67
26  99003711                       12           167             69           26.22
27  99003713                       15            97              8           11.67
28  ANKIT KUMAR YADAV              26           190            246           48.44
29
30  Below are the number of rows from each author that have survived and are still
31  intact in the current revision:
32
33  Author                    Rows      Stability          Age       % in comments
34  99003711                    75           44.9          0.0                0.00
35  99003713                    53           54.6          0.1                0.00
36  ANKIT KUMAR YADAV          105           55.3          0.3                0.00
37
38  The following history timeline has been gathered from the repository:
39
40  Author                 2021W08    2021W09
41  99003648               +++++++
42  99003711                  -+++       -+++
43  99003713                    ++          +
44  ANKIT KUMAR YADAV      ----++++   -----+++
45  Modified Rows:              414        486
46
```

Build

"Brief on outcome of the build and setup done"

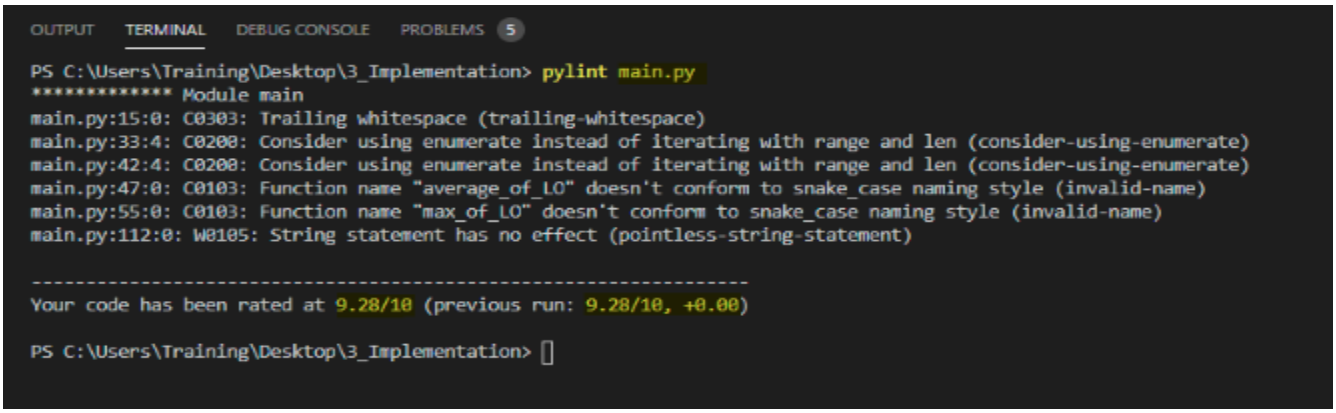
After analysis of marks than we generate Spider chart of every student and also send auto generated e-mail to every student along with faculty member



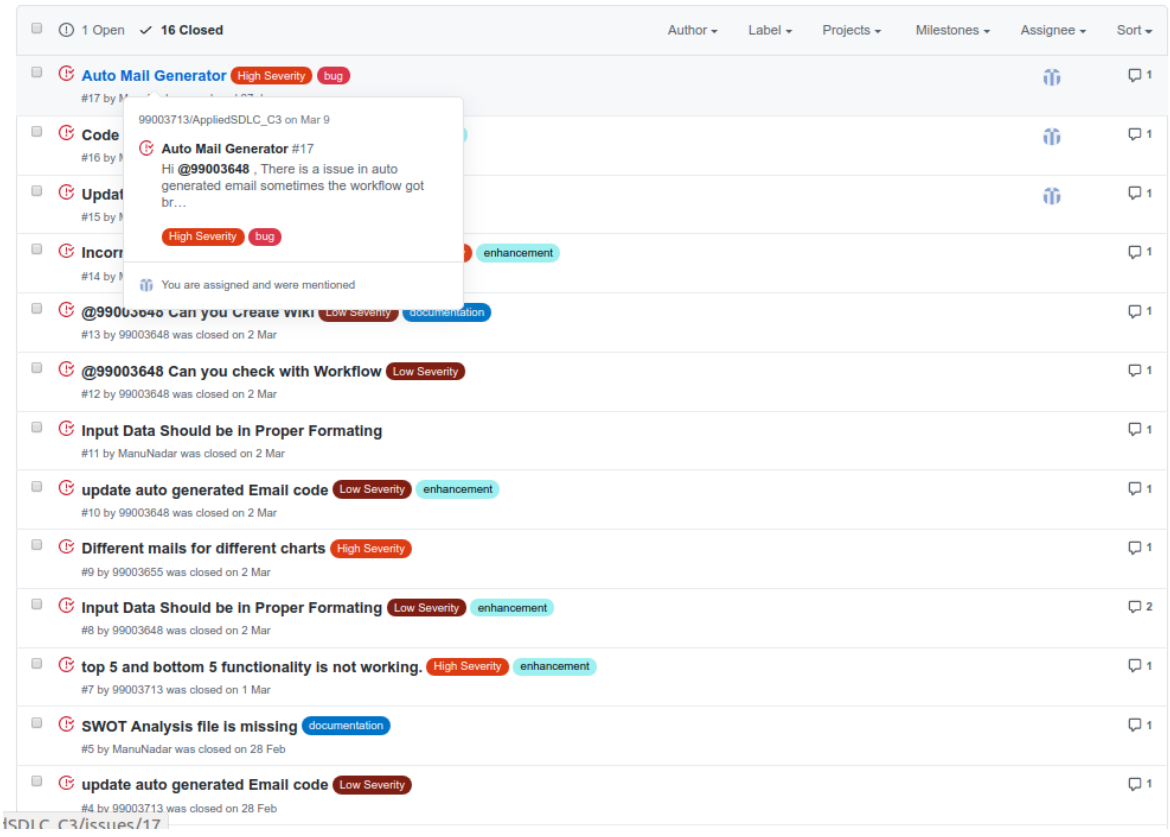


Code quality and Issues or Bug Tracking

"Brief on code quality

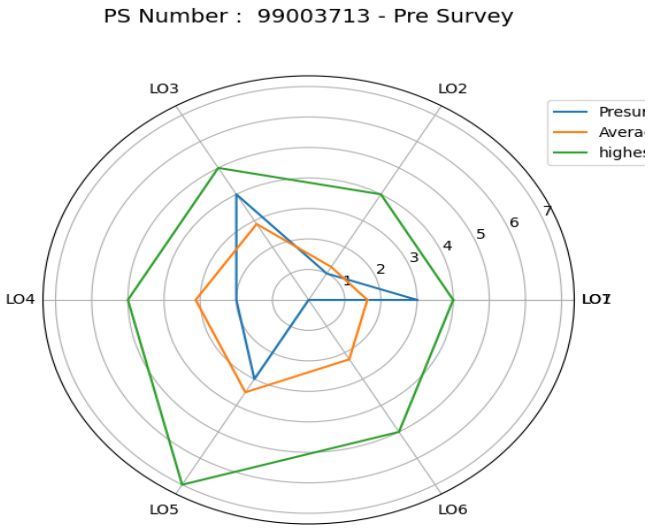


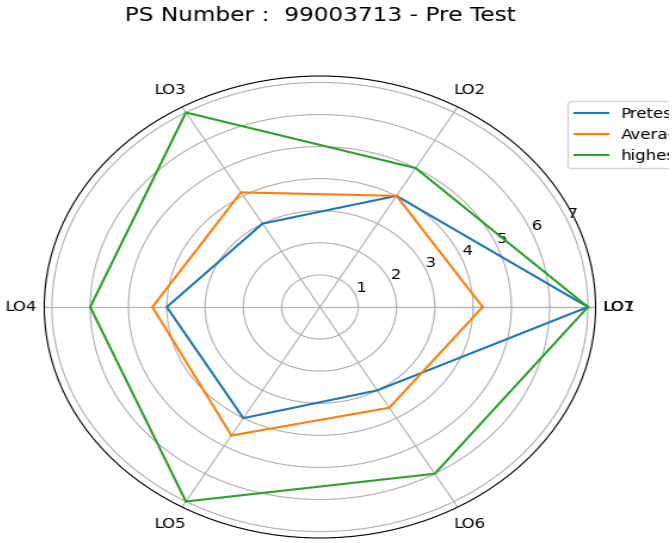
Errors and warnings flagged (issues created) and fixed"



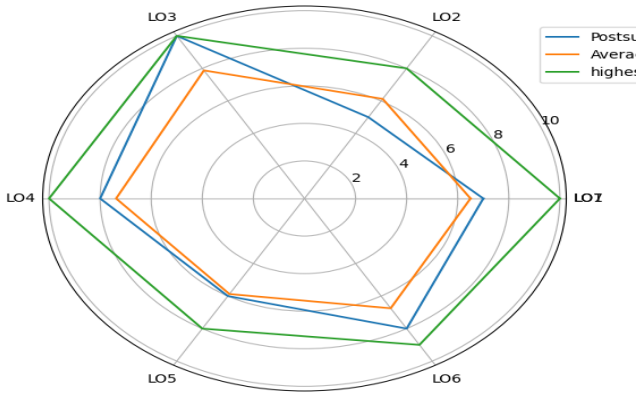
Unit Testing

"Unit Testing setup alignment with test plans and summary of outcome"

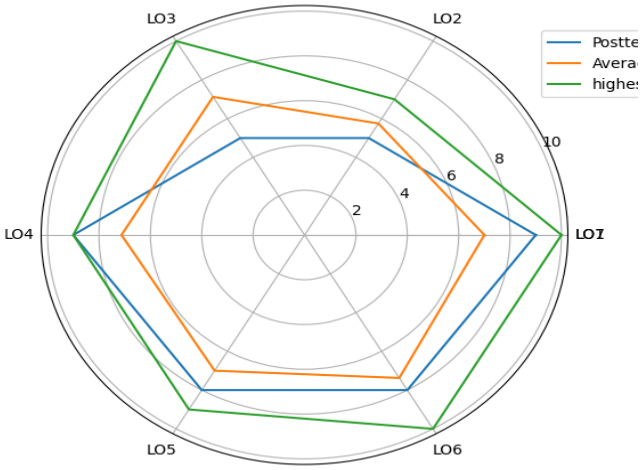




PS Number : 99003713 - Post Survey



PS Number : 99003713 - Post Test



Individual Contribution & Highlights

"Brief on Contributions by you for Team"

PS No	Name	Features
99003713	Omparkash Harod	Fetching data using Pandas, Integration, Requirement
99003648	Ankit Kumar Yadav	Email Automation, Swot,4W1H
99003711	Manu Nader	Data Visualization, Class UML Diagram, Test Plan

Summary

"Key Highlights not covered till now, Softskills and technical side"

Challenges faced and how were they overcome

"Brief and crisp"

- We faced challenges when we implemented the Workflow.
- We faced challenges in Integration of main code with email automation.
- We faced challenges in git inspector
- We faced challenges in make file

Future Scope (If applicable)

Miniproject -2 [Team/Individual]

Module/s

Topic and Subtopics

Objectives & Requirements

Design

Test Plan

Implementation Summary

Git Link

Git Dashboard

Summary

Git inspector summary

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Code quality

Unit Testing

Issues

Individual Contribution & Highlights

Summary

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