

GENESIS - Learning Outcome & Mini-project Summary Report



LTTTS
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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
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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:-

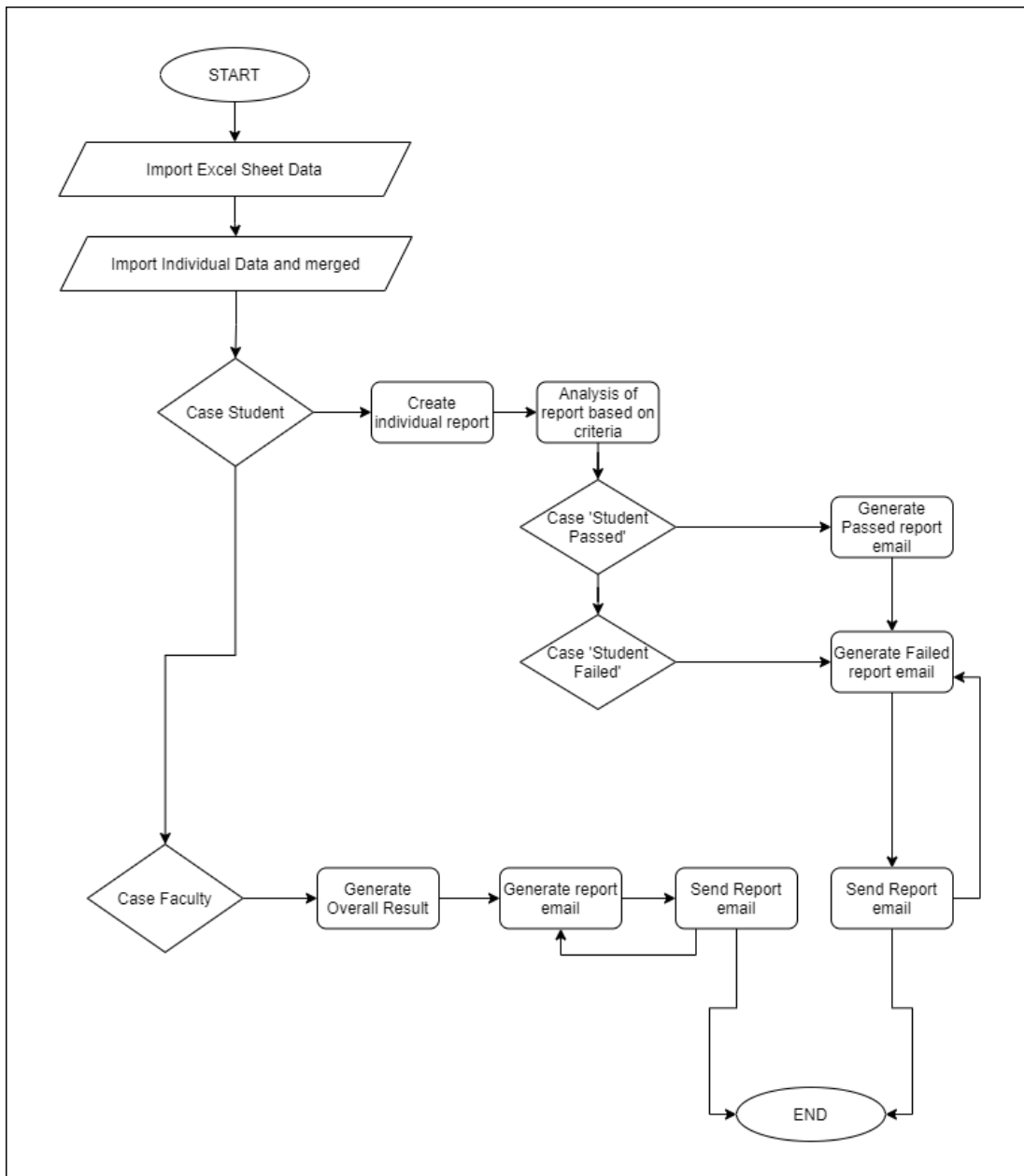
Requirement Id	Description
Top five	Top five score in a class
Bottom five	Bottom five score in a class

Design

“System Level and subsystem level UMLs – Structural and Behavioral Diagrams”

Structural Diagram

Data Flow Diagrams: -



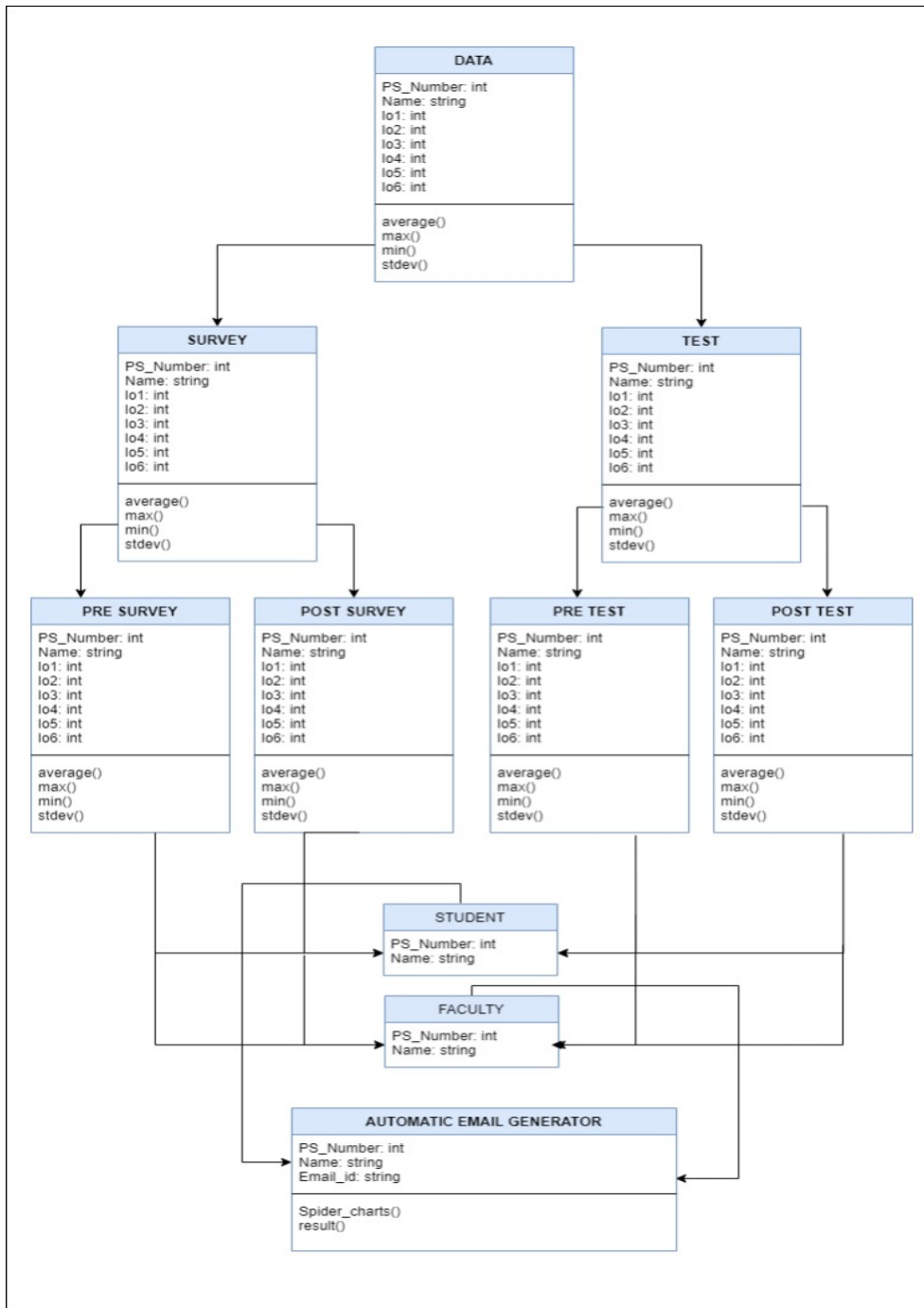
High level Class Diagram: -

Figure 5 Structural UML (High level diagram)

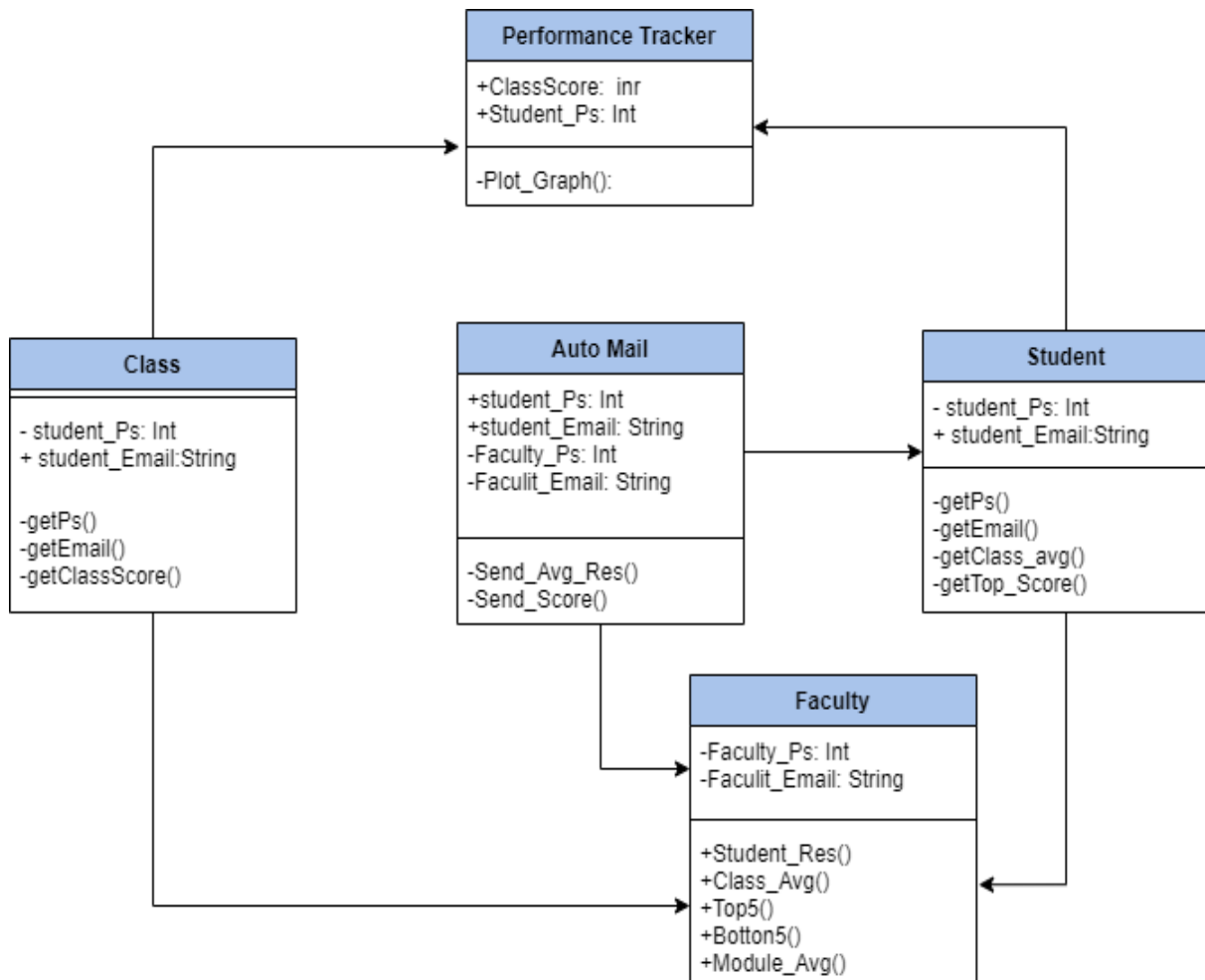
Low Level Class Diagram

Figure 6 Structural UML (Low level diagram)

Behavioral Uml Diagram:-

High Level Use Case Diagram

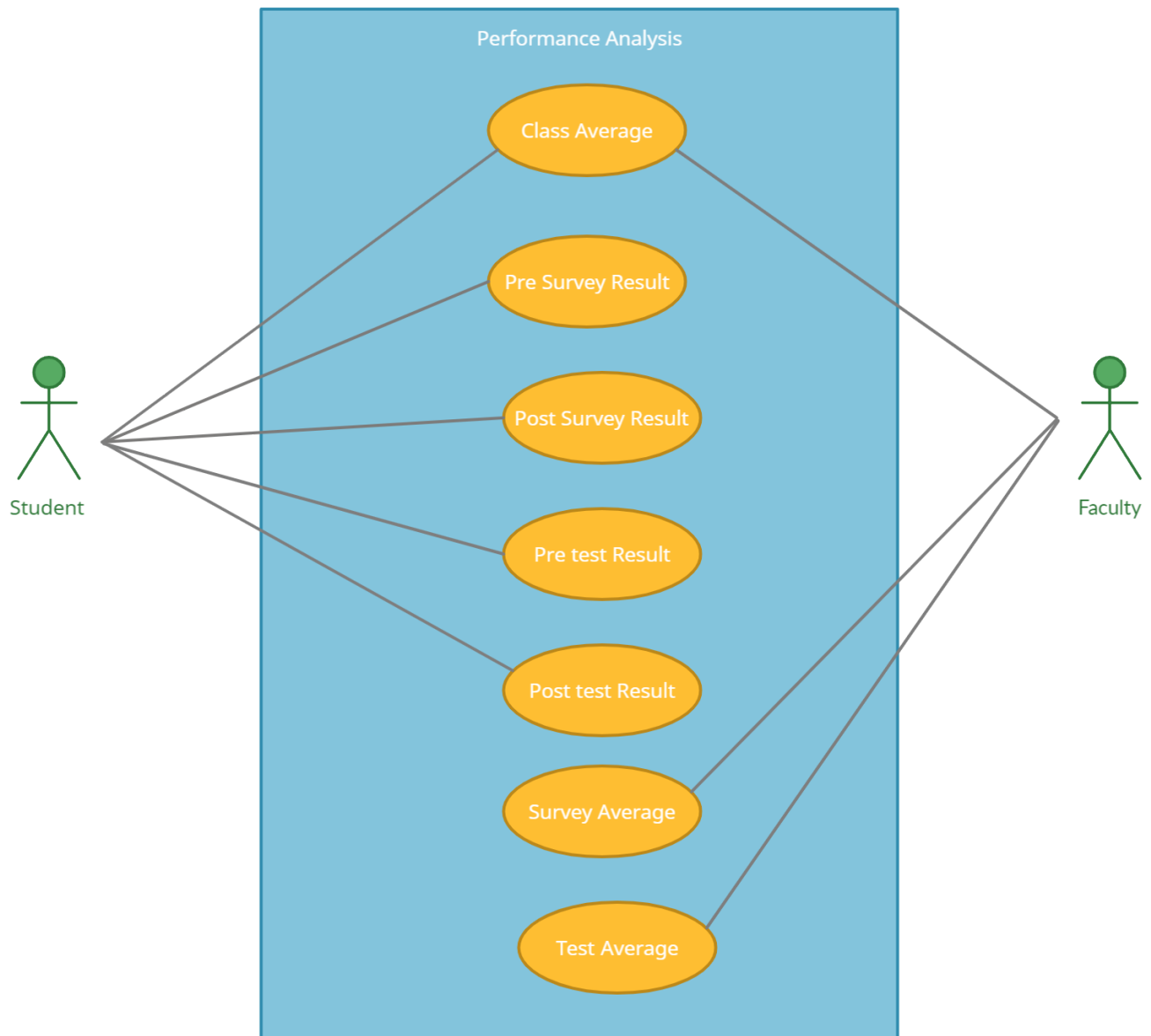


Figure 7 Behavioural UML (Low level Diagram)

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

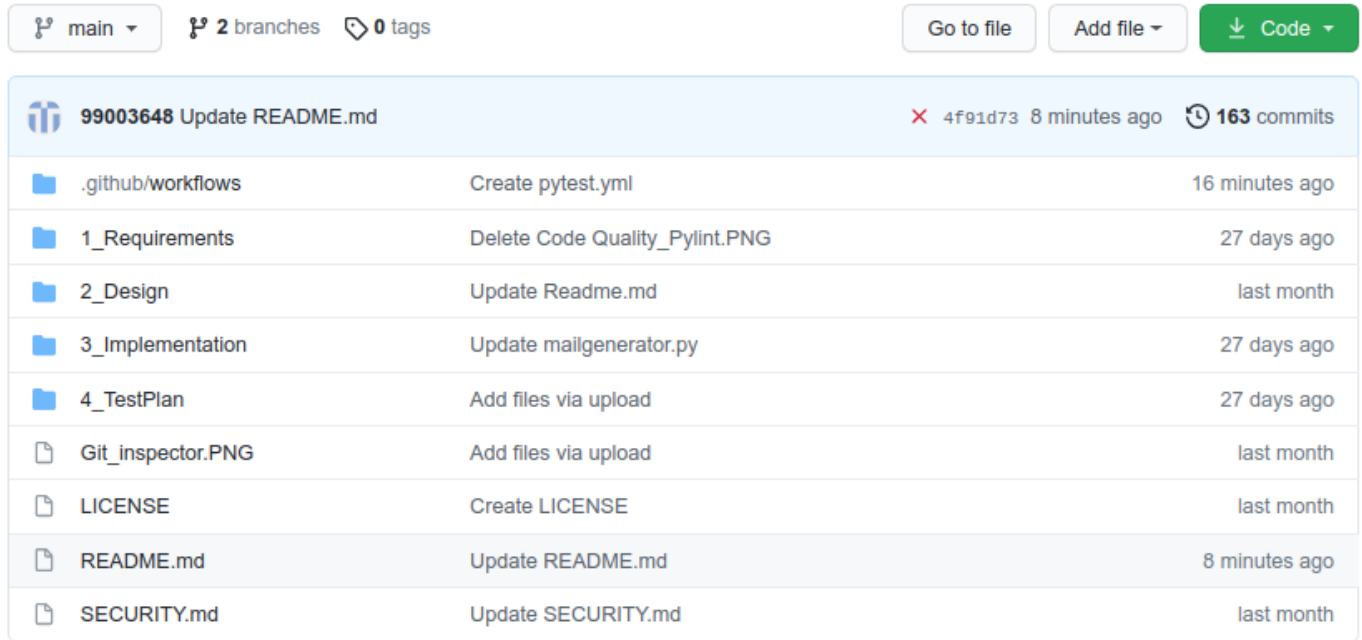
“Please upload a short video on the repo for the walkthrough of the project (Team/Individual) less than 7min and less than 30MB File Size. Start is the Standard opening slide with title of mini project + Team members followed by the walkthrough ”

Git Link

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

Git Dashboard

“Screenshot of the GitHub Repo page with all the badges and summary”



main 2 branches 0 tags Go to file Add file Code

99003648 Update README.md	4f91d73 8 minutes ago	163 commits
.github/workflows	Create pytest.yml	16 minutes ago
1_Requirements	Delete Code Quality_Pylint.PNG	27 days ago
2_Design	Update Readme.md	last month
3_Implementation	Update mailgenerator.py	27 days ago
4_TestPlan	Add files via upload	27 days ago
Git_inspector.PNG	Add files via upload	last month
LICENSE	Create LICENSE	last month
README.md	Update README.md	8 minutes ago
SECURITY.md	Update SECURITY.md	last month

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

Workflows

New workflow

All workflows

CodeQL

Git Inspector

PyLint

PyTest

Python CI

Python application

⚠️ Actions are currently disabled for your account. Please reach out to [GitHub Support](#) for assistance.

All workflows
Showing runs from all workflows

Filter workflows

217 workflow runs

Event Status Branch Actor

Update README.md
PyLint #7: Commit 4f91d73 pushed by 99003648

main

yesterday
29s

...

Update README.md
CodeQL #44: Commit 4f91d73 pushed by 99003648

main

yesterday
4m 10s

...

Update README.md
PyTest #5: Commit 4f91d73 pushed by 99003648

main

yesterday
32s

...

Update README.md
Python CI #57: Commit 4f91d73 pushed by 99003648

main

yesterday
56s

...

Update README.md
PyTest #4: Commit 8ca1ae8 pushed by 99003648

main

yesterday
30s

...

Update README.md
CodeQL #43: Commit 8ca1ae8 pushed by 99003648

main

yesterday
3m 33s

...

Update README.md
PyLint #6: Commit 8ca1ae8 pushed by 99003648

main

yesterday
35s

...

Update README.md
Python CI #56: Commit 8ca1ae8 pushed by 99003648

main

yesterday
55s

...

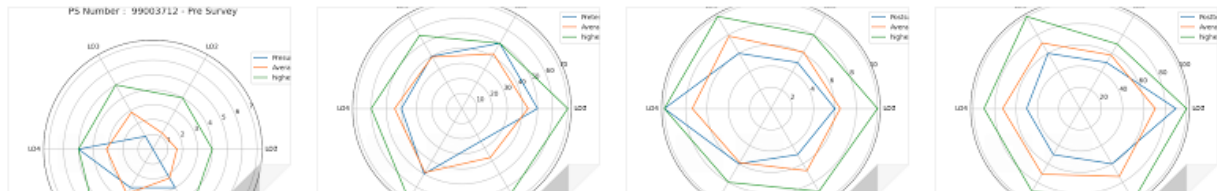
Performance score of Python Advanced Inbox x

test.score@gmail.com

to me

Dear ankit sahu,
Please find growth report Below
Your Pre survey Score is : 12
Your Pre Assessment Score is : 255
Your Post Survey Score is : 38
Your Post Assessment Score is : 360

4 Attachments



Code quality and Issues or Bug Tracking

“Brief on code quality

```
OUTPUT  TERMINAL  DEBUG CONSOLE  PROBLEMS  5

PS C:\Users\Training\Desktop\3_Implementation> pylint main.py
***** Module main
main.py:15:0: C0303: Trailing whitespace (trailing-whitespace)
main.py:33:4: C0200: Consider using enumerate instead of iterating with range and len (consider-using-enumerate)
main.py:42:4: C0200: Consider using enumerate instead of iterating with range and len (consider-using-enumerate)
main.py:47:0: C0103: Function name "average_of_10" doesn't conform to snake_case naming style (invalid-name)
main.py:55:0: C0103: Function name "max_of_10" doesn't conform to snake_case naming style (invalid-name)
main.py:112:0: W0105: String statement has no effect (pointless-string-statement)

-----
Your code has been rated at 9.28/10 (previous run: 9.28/10, +0.00)

PS C:\Users\Training\Desktop\3_Implementation> []
```

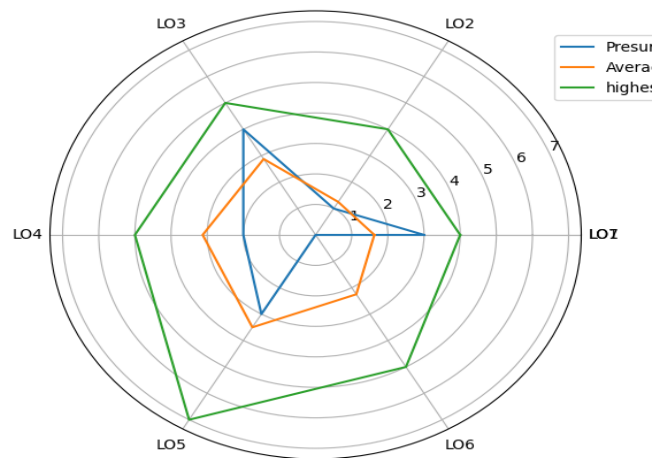
Errors and warnings flagged (issues created) and fixed”

1 Open 16 Closed		Author	Label	Projects	Milestones	Assignee	Sort
#17 by M	Auto Mail Generator	High Severity	bug				1
#16 by M	Code						1
#15 by M	Update						1
#14 by M	Incor						1
#13 by 99003648	Can you Create wiki	Low Severity	documentation				1
#12 by 99003648	Can you check with Workflow	Low Severity					1
#11 by ManuNadar	Input Data Should be In Proper Formating						1
#10 by 99003648	update auto generated Email code	Low Severity	enhancement				1
#9 by 99003655	Different mails for different charts	High Severity					1
#8 by 99003648	Input Data Should be In Proper Formating	Low Severity	enhancement				2
#7 by 99003713	top 5 and bottom 5 functionality is not working.	High Severity	enhancement				1
#5 by ManuNadar	SWOT Analysis file is missing		documentation				1
#4 by 99003713	update auto generated Email code	Low Severity					1

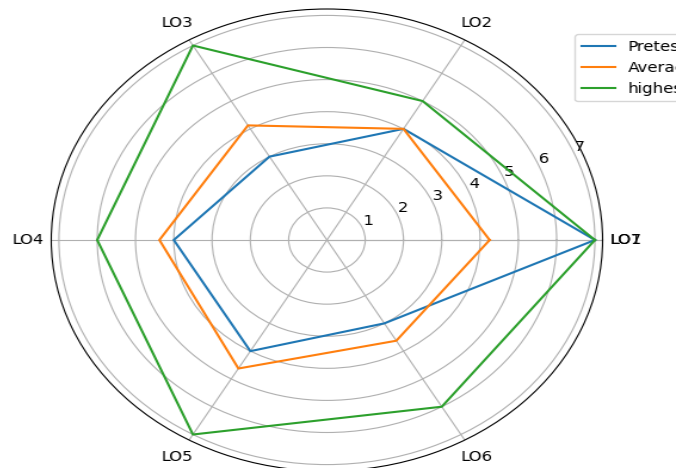
Unit Testing

“Unit Testing setup alignment with test plans and summary of outcome”

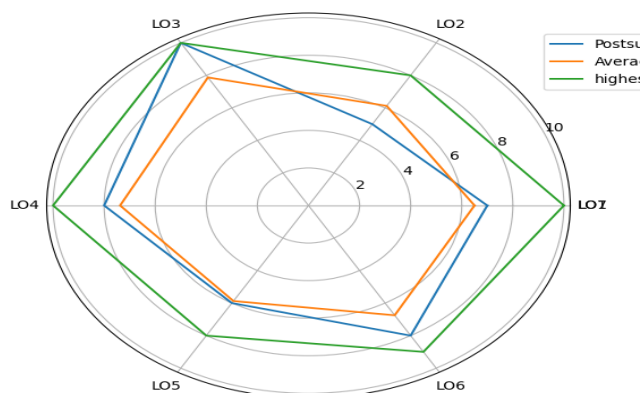
PS Number : 99003713 - Pre Survey



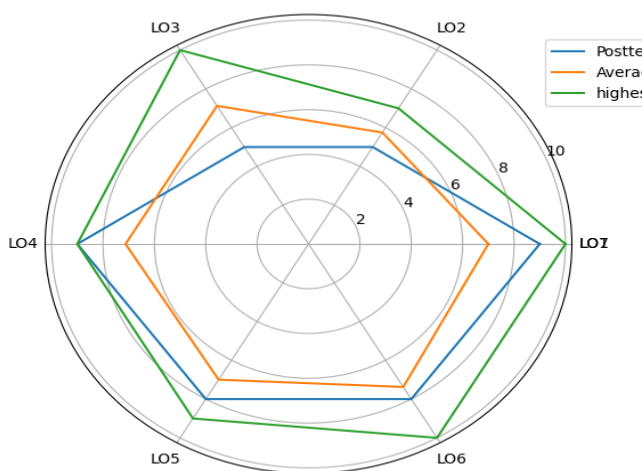
PS Number : 99003713 - Pre Test



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

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Git Dashboard

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Git inspector summary

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Issues

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