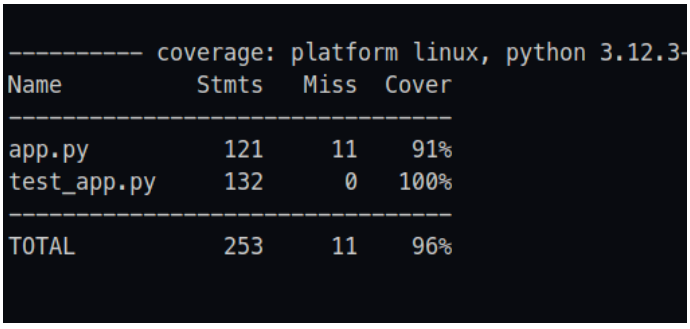
CISC / CMPE 327, Fall 2024
Project Assignment #4: Code Coverage Analysis
Due: Monday, Nov. 11 (plus 24-hour automatic extension if needed)

In this assignment, you will focus on measuring and improving the code coverage of your project through code coverage tools. Code coverage is a metric that indicates how much of your code is covered by automated tests. A higher code coverage percentage generally means that more of your code is tested, which can lead to fewer bugs and more reliable software. Follow the steps below to complete the assignment.

Steps to Complete the Assignment:

1. Use a code coverage tool, for example 'coverage.py' for Python (install the required package), 'Istanbul' (https://istanbul.js.org/) for JavaScript, to measure the current code coverage of your implemented project as you did in Assignment 3. These tools will take the test script file(s) as input and produce a code coverage report. Record this coverage report (screenshot) in a pdf file under **Assignment-4 folder.**

   A sample report could look like the following:



2. Explain for each file which statement is missed in code coverage testing and why. Write your explanation in the same file as above.

3. If you observe that your code coverage percentage is below 90%, write additional test scripts to increase the code coverage percentage. Reevaluate the code coverage percentage and record the updated code coverage report in the same file as above. Also, add the newly created test script in the pdf file as above.

4. While we track contributions through GitHub commits, you must create a table to list individual contributions of the members in task-distribution file under Assignment-4 folder in your repository.

5. Push your latest changes to the GitHub repository.

6. Make sure you put your **GitHub repository link** under the Assignment-4 folder in OnQ

What You Should Deliver:

1. Your updated GitHub repository.
2. The pdf file with code coverage analysis and screenshots.
3. Instruction (in a separate file) to execute code coverage

Marking Criteria Assignment #4

Marking Criteria: Marks will be assigned between zero and the number of marks shown to a resolution of 0.5 mark.

Successful execution of code coverage tool	2 mark
Code coverage report analysis	5 mark
Overall Presentation & Quality	1 mark
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	Total: 8 marks