Instructions:

Please read the instructions very carefully.

1. This is an **INDIVIDUAL WORK** unless specified otherwise. Students are not allowed to share their answers (actual coding) but are allowed to discuss with each other to solve the problems.

2. The tasks will be checked during the practical session itself therefore students will be assessed based on participation and their answers.

3. To start:

    a. Create a new folder called **StudentID-P1**. Please change student id to your own personal ID and change the 1 to the correct practical number.

    b. Create one .ipynb / .py file for each question with the naming convention question1.ipynb, question2.ipynb and so on.

    c. The following information must be included in each file:
        i. Student Name
        ii. Student ID
        iii. Module Code and Title

4. Please note that **ALL FILE AND NAMING CONVENTIONS** must be followed.

5. The **GREEN** colored font in the sample output represents an input from the user.

6. The **BLUE** colored font in the sample output represents a dynamic output.

7. Please note that the colored fonts will vary on the values specified. In other words, they are just **SAMPLES** only.

8. All tasks must be completed within the session. Students are given enough time to complete the tasks listed.

9. Once completed, please create a zip file with the same name as your folder, and upload it to LMS before the end of the session. A submission link will be provided.

10. Students are encouraged to upload their work to their own GitHub account. Students are also encouraged to include the GitHub link in the submission.

11. Students are encouraged to ask questions during the practical if they encountered a problem.

Question 1:

a. Write a Panda's program to get the first 3 rows of a given DataFrame. Sample data are as follow:

- Examination Data:
  - Name: Anastasia, Dima, Katherine, James, Emily, Michael, Matthew, Laura, Kevin, Jonas
  - Score: 12.5, 9, 16.5, N/A, 9, 20, 14.5, N/A, 8, 19
  - Attempts: 1, 3, 2, 3, 2, 3, 1, 1, 2, 1
  - Qualify: yes, no, yes, no, no, yes, yes, no, no, yes
  - Labels: a, b, c, d, e, f, g, h, I, j

Note: The first value of the Name corresponds with the first value of each other attributes such as Score, attempts, qualify and labels.

Sample Output:

First three rows of the data frame:

Attempts	Name	Qualify	Score	Labels
1	Anastasia	Yes	12.5	A
3	Dima	No	9.0	B
2	Katherine	Yes	16.5	C

b. Get 3 students that are qualified.

Sample Output:

First three rows of the data frame:

Attempts	Name	Qualify	Score	Labels
1	Anastasia	Yes	12.5	A
2	Katherine	Yes	16.5	C
2	Michael	Yes	9	E

c. Get 2 students that have scored more than 12 points.
Sample Output:

First three rows of the data frame:

Attempts	Name	Qualify	Score	Labels
1	Anastasia	Yes	12.5	A
2	Katherine	Yes	16.5	C

Question 2:

Write a NumPy program to add, subtract, multiple and divide arguments element-wise.

Note: Use function to compute.

Sample Output:

Calculate(3,1,-)

Answer = 2

Calculate(3,1,*)

Answer = 3

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