Condition Statements and Loops Task

Task Requirements Document

Task Requirements

1. Print Write a Python program to construct the following pattern, using a nested for loop.

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

2. Write a Python program to print alphabet pattern 'A'.

```
  * * *
 *     *
 *     *
 * * * * *
 *     *
 *     *
 *     *
```

3. Write a Python program to calculate the sum and average of n integer numbers (input from the user). Input 1 to finish.

4. Write a Python program to check the validity of a password (input from users).

   Validation:

   - At least 1 letter between [a-z] and 1 letter between [A-Z].

   - At least 1 number between [0-9].

   - At least 1 character from [$#@].

   - Minimum length 6 characters.

   - Maximum length 16 characters.

5. Write a Python program that accepts a string and calculate the number of digits and letters.

Task Programming Language and Technologies

- Python Programming Language.
- Jupiter Notebooks.
- Google Colab.

Evaluation Criteria

- 50% on functional Code.
- 40% program workflow.
- 10% adding extra features that help archives better results.

Deadline

19/11/2024 at 11:59 pm

Notes

- Submit your unique solution.
- Submit your solution as **ipynb** format.
- Have fun and enjoy 😊.