Lab Task 5

Requirements

- Complete all of the tasks defined below.
- Copy/Pasting (Plagiarism) from your classfellow will not be tolerated and will result in cancellation of your task.
- It is highly recommended that you use Notion.so to create your assignments.
- Each task must be solved in order.
- At the top of each file, following **MUST** be specified in the following manner:

```
Name: <Full-Name>
RollNumber: <Roll-Number>
Course: <Course-Name>
Date: <Date-of-Submission> (DD/MM/YYYY)
TotalQuestions: <Total-Questions>
AttemptedQuestions: <Number-of-questions-attempted>
---

# Example:
Name: Ali Taqi Wajid
RollNumber: 190792
Course: CY243L - Penetration Testing - Lab
Date: 02/10/2023
TotalQuestions: 3
AttemptedQuestions: 3
---
```

⇒ This structure has to be followed by each student, if not; it may result in slight deduction of marks from the task/quiz/assignment. Example at: DRIVE

Submission Requirements

You are required to submit a single PDF file with the following naming convention:

```
<course-code>-<batch|section>-<roll_number>.pdf
## Example:
CY102L-F23-A-231521.pdf
```

⇒ Any other file name will not be considered.

Tasks for Lab-5:

Task - 1:

Create a Bash script that classifies a person's age based on the input provided. This script should:

1. Prompt the user to enter their age.
2. Check if the age is a valid positive integer.
3. If the age is valid, use conditional statements to classify the age as "Child" if it's between 5 and 12, "Teenager" if it's between 13 and 19, "Adult" if it's 20 or older, and "Invalid age" for any other value.
4. Display the classification to the user.
5. If the age is not a valid positive integer or the input is not a number, display an error message.

Task - 2:

NOTE: For this task to be completed properly, you must first create 5-6 .txt files in the current directory and add random data. You can run the following command to do it:

```
## Generate random files in ./task/:
```

```
fName=$(echo $RANDOM | md5sum | head -c5); mkdir -p task && cd task; for i in $(seq 1 10); do lf=$fName$i.txt; echo "Creating file: $lf
```

Create a bash script that does the following:

- Find all the .txt files in the current folder
- Read the content within each file and save the output to `final.txt`
- Get the total number of characters in the `final.txt` and the number of lines as well.

Task - 3:

Write a simple bash script that extracts the IP Address of `lo` interface by making use of `ip a s` command.

Good Luck!
