Week 2

Activity 1: Send an OTP to any phone number.

Step 1: Open Replit.
Step 2: Click on sign in using your Google account if you have already signed up once. If not then open the link https://replit.com/team/it-essentials-python-gvp2023
Step 3: Click Teams on the left-hand side window.
Step 4: Click on "IT ESSENTIALS AND PYTHON PROGRAMMING LAB".
Step 5: Then you will be directed to respective projects in that particular team.
Step 6: Now open the "L#01:01. Send OTP" project.
Step 7: Here you will be directed to the pattern.c file in which you will be able to see the following command "**send_otp("7981452681", 1509)**".
Step 8: Now you can enter your phone number in the "ǵƤҤ1452681ə section and run it.
Step 9: You will now receive the OTP on your phone number.

Code:

```
#include "future.me"

START

  send_otp(" 7981452681", 1509);


STOP
```

Output:
Got the OTP 1509 on my mobile phone.

Week 2

Activity 2: "cowsay" command.

Step 1: Go back to “IT ESSENTIALS AND PYTHON PROGRAMMING LAB”.
Step 3: Now open the “L#0:01.Run it” project.
Step 4: Here you will be directed to the (.replit) file in which you will be able to see the following command

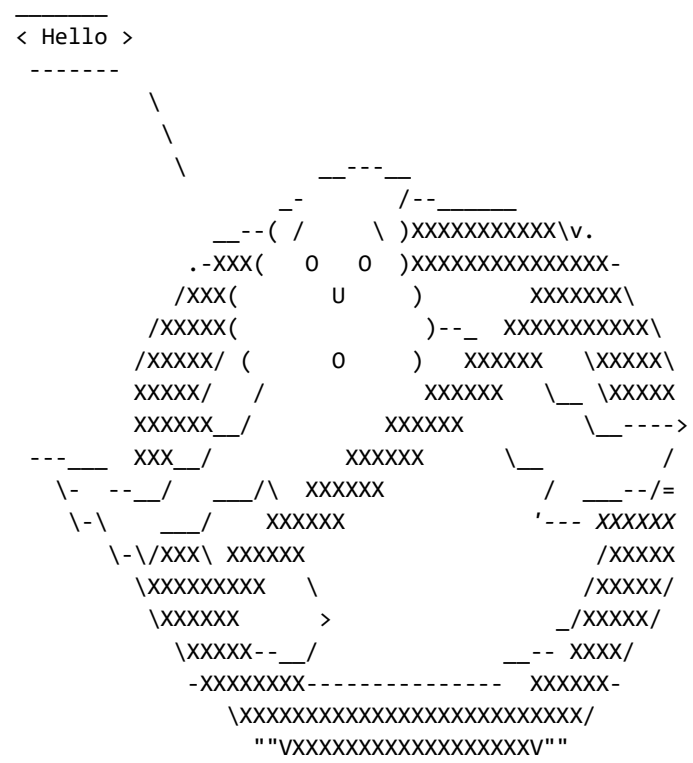
```
run = "cowsay Namasthey and Welcome; cowsay GVP - B.Tech 2023 - IT ESSENTIALS AND PYTHON PROGRAMMING LAB; cowsay Your onboarding to our Coding Platform is complete!!!; cowsay Meet you in the class."

[nix]
channel = "stable-21_11"
```

Step 5: Click on Run you will see the following output in the console

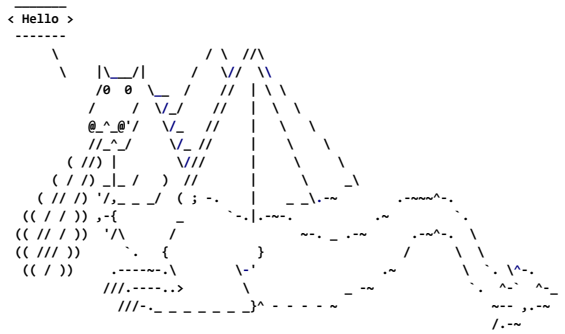
```
 ____________________
< Namasthey and Welcome >
 ----------------------
        \   ^__^
         \  (oo)\_______
            (__)\       )\/\
                ||----w |
                ||     ||
 _____________________________________
/ GVP - B.Tech 2023 - IT ESSENTIALS AND \
\ PYTHON PROGRAMMING LAB                /
 -------------------------------------
        \   ^__^
         \  (oo)\_______
            (__)\       )\/\
                ||----w |
                ||     ||
 ___________________________________
/ Your onboarding to our Coding Platform \
\ is complete!!!                         /
 -----------------------------------
        \   ^__^
         \  (oo)\_______
            (__)\       )\/\
                ||----w |
                ||     ||
 ____________________
< Meet you in the class. >
 ----------------------
        \   ^__^
         \  (oo)\_______
            (__)\       )\/\
                ||----w |
                ||     ||
```

Step 6: To change the message you can change it by changing the text between the double quotes (or) Open shell and run the command cowsay “Your Text”.

Sample command: cowsay -f ghostbusters “Hello”
Sample output:



Sample: cowsay -f dragon "Hello"
Sample output



Week 3

Activity 2: Explore files on your computer. Create a folder "IT Essentials-your name" in C drive. Inside that folder, we will create "Week 3"

Step 1: Open cmd.

Step 2: Now run the following commands line by line

```
cd c:
mkdir IT\ Essentials\ akhil  or mkdir "    ITEssentials akhil"
cd IT\ Essentials\ akhil

mkdir Week03
```

Step 1: Open File Explorer (Shortcut: Windows key + E).

Step 2: Go to "This PC" and Open C drive.

Step 3: Create a new file by left-click then New → Folder
(Shortcut: Ctrl + shift + N) then name the file "IT Essentials akhil".

Step 4: Open the folder and create a new folder named "Week03".

Week 3

Activity 3: Create a webpage using an HTML file and an image file.

Step 1: Download an image and move it to the Week03 folder.

Step 2: Open Notepad.

Step 3: Start writing your HTML code in it as followed

```
<html>
    <head>
        <title> WebPage </title>
    </head>
        <body>
            <h1><i>HI I'm akhil</h1></i>
            <img src="img.jpg" width="25%">

        </body>
</html>
```

Note: "img.jpg" is name of the file so name the image properly in the formate [image-name.file-type]

Step 4: Save the file in the (.html) format in the same folder Week03 (Shortcut: Ctrl + Shift + S).

Activity 4: Create a website using GitHub and use the files created in “Activity 3”.

Step 1: Create a New Repository

- ➢ Go to GitHub and log in to your account.
- ➢ Click on the "+" icon at the top right corner and select "New repository".
- ➢ Give your repository a name, for example, "my website".
- ➢ (Optional) Add a description for your repository.
- ➢ Make sure to set the repository as "Public".
- ➢ Initialize the repository with a README file (optional but recommended).
- ➢ Click on "Create repository".

Step 2: Upload Your HTML and Image File

- ➢ Navigate to your newly created repository.
- ➢ Click on the "Add file" button and choose "Upload files".
- ➢ Drag and drop (or select) your HTML file and the image file from your computer.
- ➢ Enter a commit message, for example, "Initial commit".
- ➢ Click on "Commit changes".

Step 3: Setup GitHub Pages

- ➢ In your repository, click on the "Settings" tab.
- ➢ Scroll down to the "GitHub Pages" section.
- ➢ Under "Source", select the branch you want to use (usually "main" or "master") from the dropdown menu.
- ➢ Click "Save".

Step 4: Access Your Website

- ➢ Once you've set up GitHub Pages, GitHub will provide you with a URL to access your website. It will typically be in the format: https://[your-username].github.io/[repository-name]/
- ➢ Click on the provided link or copy and paste it into your browser to view your website.

Step 5: Update Content

Whenever you want to update the content of your website:

- ➢ Navigate to your repository.
- ➢ Click on the file you want to edit.
- ➢ Click the pencil icon to edit the file.

- ➢ Make your changes and provide a commit message.
- ➢ Click on "Commit changes"..

Week 4

Activity 1: Delete the repo in GitHub.

Step 1: Open the repo in GitHub.
Step 2: Go to the setting which is on the top window.
Step 3: A new page opens then scroll down, you will find a "Delete this repository" Click on it.
Step 4: A pop-up appears enter the text in the following format [User-Name/Repositry-Name] then hit Enter.
Step 5: It will ask for your password enter it.

Week 5

Activity 3: Add a YouTube video to your website.

Step 1: Go to youtube.com
Step 2: Select the video you want then click on share and click on Embed.
Step 3: Copy the code and paste it into the html code inside the body tag. Do this in the web editor
Step 4: Then go to Source Control (Shortcut: Ctrl + Shift + G)
Step 5: In changes click on the "+" then give the message and click on Commit & Push

Week 7

ACTIVITY 2: Check the tasks.

Step 1: Open the web browser and at the address bar type
https://gvp42.github.io/tasks
Step 2: Then you are directed to a website. There you should select the option.
Step 3: Mid-1 exam practice tasks.
Step 4: Then the list of questions will come.

TASK-1

1. Create a directory structure for a project named “BharatApp”, with subdirectories for “Documents”, “Scripts”, and “Logs”. Then, create an empty file named “README.txt” in the project’s root directory.
2. In the “Scripts” directory of “BharatApp”, create a script file named “init.sh”. Add a line of text in this file that says “Initialization script for BharatApp”. Then, display the contents of this file.
3. Inside the “Documents” directory of “BharatApp”, create a file named “project_overview.txt”. Write a brief description of the project in this file. Afterward, list all the files in the “Documents” directory.

Step 1: Open Git Bash shell
Step 2: Using git commands complete the task in Git Bash.

```
Type the commands as follows:
cd d:
mkdir "Bharat App"
cd Bharat\ App/
mkdir Documents\ Scripts\ Logs
touch README.txt
cd Scripts/
touch init.sh
echo "Initialization script for BharatApp" > init.sh
cat init.sh
cd ..
cd Documents/
mkdir "project_overview.txt"
ls
```

TASK-2

In your home directory, create a directory named “BharatProject”. Inside it, create two subdirectories named “Reports” and “Resources”. Within “Reports”, create an empty file named “summary.txt”. Use the echo command to add a line of text “Project Summary” into “summary.txt”. Finally, use cat to display the contents of “summary.txt”, and then use ls to list all files in the “Reports” directory.

Step 1: Open git bash shell
Step 2: Using git commands complete the task in git bash
Type the commands as follows:

```
cd d:
mkdir "BharatProject"
cd BharatProject/
mkdir Reports\ Resources
cd Reports/
touch summary.txt
echo "Project Summary" > summary.txt
cat summary.txt
ls
```

Week 8

Activity 2: Create a local git repository.

Step 1: Open the Git Bash application on your machine.

Step 2: Using the navigation commands direct your path to the directory where you want to create the local git repo.

Step 3: Then after entering the path You need to initiate the git local repo by using the Unix command **git init**

Step 4: Then a hidden directory is created in your current directory which can seen by running the command **ls -ah** (You will find ".git" directory as a hidden content)

Step 5: To add all the files at a time to the git repository run the following command **git add .**

Step 6: To check whether the files are added or not you need to type the command

git status

Activity 3: Configure your local git repo to remote git repo in your GitHub account.

Step 1: Configure your User name and email ID by running the following commands

```
git config –global user.name “[akhilboyina]”
git config –global  user.email “[akhilboyina2005@gmail.com]”
```

Step 2: Open the GitHub website in the web browser and log into it.

Step 3: Then create an empty repository without a readme file.

Step 4: Open the repository and scroll down then you will notice three lines that seem like

```
git remote add origin https://github.com/[User-Name]/[Repositry-Name].git
git branch -M main
git push -u origin main
```

Step 5: Then a pop-up appears for authenticating your GitHub account.

Step 6: Once it's done you are ready to go

ACTIVITY 4: Create a user name in Linux machine

Step 1: Go to git bash.

Step 2: Run **ssh root@165.22.220.235**

Step 3: Then it will ask for a password, type the password, and confirm the password.

Step 4: Then use the command **[akhil]** and the remote Linux server.

Step 5: Create a user account with your name using the ssh command

ssh [akhilboyina]@165.22.220.235

Step 7: Then it will ask for a password, create your password, and confirm the password.

Step 8: Your user account in a remote Linux machine is created.

Step 9: To verify whether the user created or not, type the command **whoami.**

Step 10: If you get your name (i.e. akhil), your user account exists.

Step 11: Now exit from the Linux machine by typing the command **exit.**

Note: You can't see the password while entering.

Week 10

Activity 2: Create aboutme.py file using Notepad

Step 1: Open a new tab in Notepad and start writing your code as follows

Code:

```
print (“Name:b.akhil ”, “Branch:CSE”, “Roll no: 323103310035”,
        “College: Gayatri Vidya Parishad College of Engineering”, sep=“\n”)
```

Step 2 Save the file as “aboutme.py” in IT Essentials akhil/Week10 folder.

Activity 3: Using git bash, run the program in aboutme.py

Step 1: Open git bast and use the navigating commands to reach the path IT Essentials akhil/Week10 in your machine

Step 2: Save the file as “aboutme.py” in IT Essentials akhil/Week10 folder.

Step 3: Now run the following command to run the file

```
python aboutme.py
```

Week 12

Activity 1: Python code to for add two numbers.

Code:

```
print("To add two numbers.")
number1 = int(input("Enter the first number: "))
number2 = int(input("Enter the second number: "))
sum = number1 + number2
print("The sum of" , number1 , "and" , number2 , "is" , str(sum) + ".")
```

sample input&output:

Test-1:

```
To add two numbers.
Enter the first number: 2
Enter the second number: 3
The sum of 2 and 3 is 5.
```

Test-2:

```
To add two numbers.
Enter the first number: 3
Enter the second number: 4
The sum of 3 and 4 is 7.
```

Activity 2: Python code to multiply three numbers.

code:

```
# write the program here
print("To multiply three numbers.")
number1 = int(input("Enter the first number: "))
number2 = int(input("Enter the second number: "))
number3 = int(input("Enter the third number: "))
product = number1 * number2 * number3
print("The product of", str(number1) + ",", number2, "and", number3, "is", str(product) + ".")
```

sample input&output:

Test-1:

```
To multiply three numbers.
Enter the first number: 2
Enter the second number: 3
Enter the third number: 4
The product of 2, 3 and 4 is 24.
```

Test-2:

```
To multiply three numbers.
Enter the first number: 2
Enter the second number: 4
Enter the third number: 8
The product of 2, 4 and 8 is 64.
```

Activity 3: Pass or fail based on marks

Code:

```
print("Pass or fail.")
marks = int(input("Enter your marks: "))
if marks >= 80:
  print("You have passed the exam.")
else:
  print("You have failed the exam.")
```

sample input&output:

Test-1:

```
Pass or fail.
Enter your marks: 78
You have failed the exam.
```

Test-2:

```
Pass or fail.
Enter your marks: 85
You have passed the exam.
```

Activity 4: Python code to Print n natural numbers.

Code:

```
n = int(input("How many natural numbers you want? "))
nlist = [i for i in range(1,n+1)]
print(f"The first {n} natural numbers are {', '.join(map(str,nlist))}.
```

Sample input & Output:

Test-1:

How many natural numbers you want? 3
The first 3 natural numbers are 1, 2, 3.

Test-2:

How many natural numbers you want? 5
The first 5 natural numbers are 1, 2, 3, 4, 5.

Activity 5: Python code to Print even numbers up to n.

Code:

```
n = int(input("Up to which number you want to print even numbers? "))
even = []
for i in range(n+1):
  if i%2 == 0:
    even.append(i)
print(f"The even numbers up to {n} are {', '.join(map(str, even))}.")
```

sample input&output:

Test-1:

```
Up to which number you want to print even numbers? 5
The even numbers up to 5 are 0, 2, 4.
```

Test-2:

```
Up to which number you want to print even numbers? 6
The even numbers up to 6 are 0, 2, 4, 6.
```

Activity 6: Python code to print n odd numbers

code:

```
        n = int(input("How many odd numbers you want to print? "))
odd = [i for i in range(1,n*2,2) if i % 2 != 0]
print(f"The first {n} odd numbers are {', '.join(map(str, odd))}.")
```

Sample input & Output:

Test-1:

How many odd numbers you want to print? 5
The first 5 odd numbers are 1, 3, 5, 7, 9.

Test-2:

How many odd numbers you want to print? 6
The first 6 odd numbers are 1, 3, 5, 7, 9, 11.