

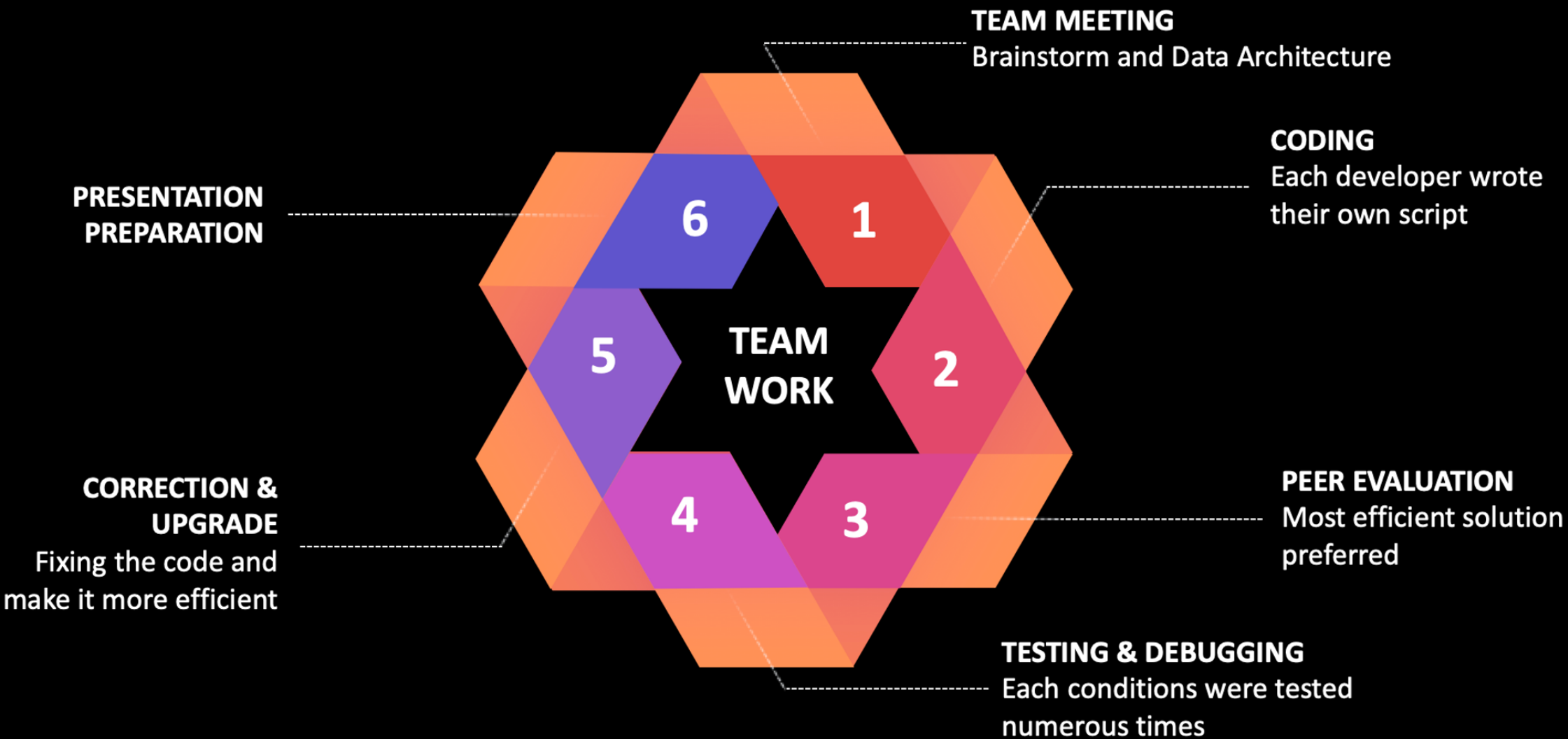
ORANGE SOLUTIONS

BIA5001 – Introduction to Statistical Language

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PURSUIT OF THE OPTIMAL SOLUTION

- How We Do Things -



IPO METHODOLOGY



INPUT

- Password
- Number of Students
- Names and Grades per Student

PROCESS

- Password Checking
- Number of Students validation
- GPA Calculation
- School Assignment based on GPA Calculation

OUTPUT

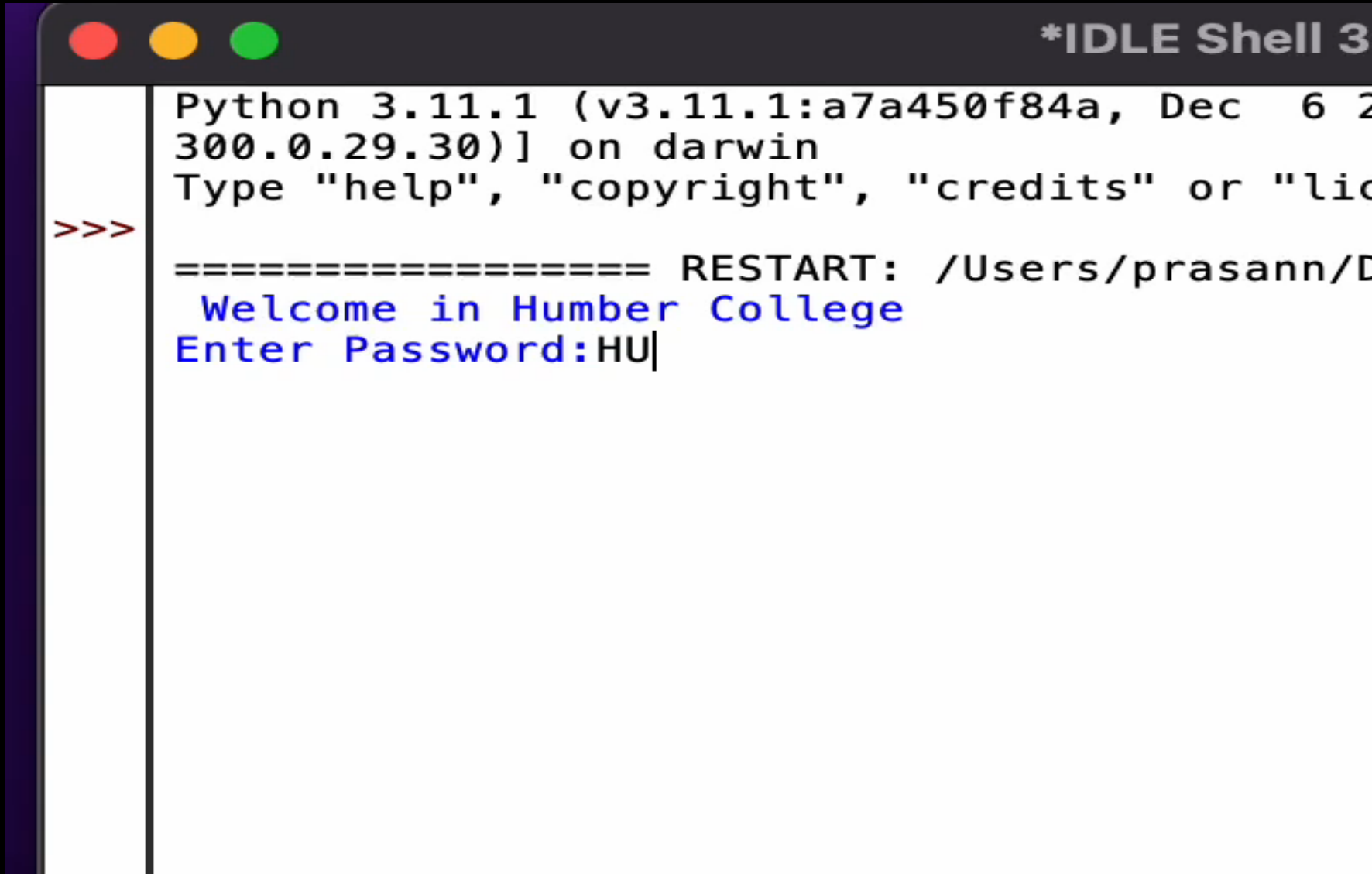
- Printing of Various Reports

RESULTS

- Password checker – Total number of students input – Students name and grade input – Report printing -

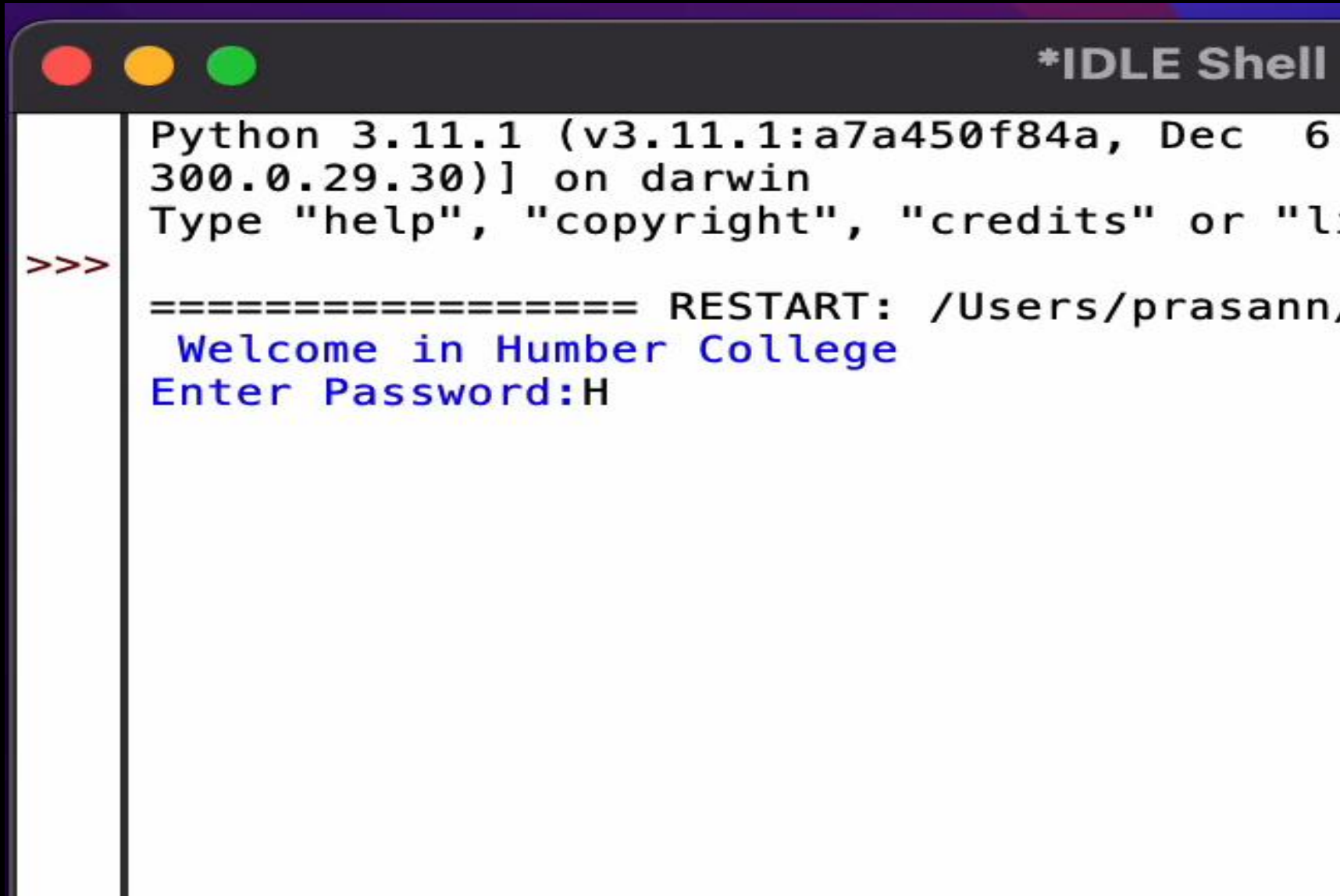


PASSWORD CHECKER - *All Wrong Attempts*



```
*IDLE Shell 3.
Python 3.11.1 (v3.11.1:a7a450f84a, Dec 6 2
300.0.29.30)] on darwin
Type "help", "copyright", "credits" or "lic
>>>
===== RESTART: /Users/prasann/D
Welcome in Humber College
Enter Password:HU|
```

PASSWORD CHECKER - *1 Wrong Attempt*



```
*IDLE Shell

Python 3.11.1 (v3.11.1:a7a450f84a, Dec 6
300.0.29.30)] on darwin
Type "help", "copyright", "credits" or "l
>>>

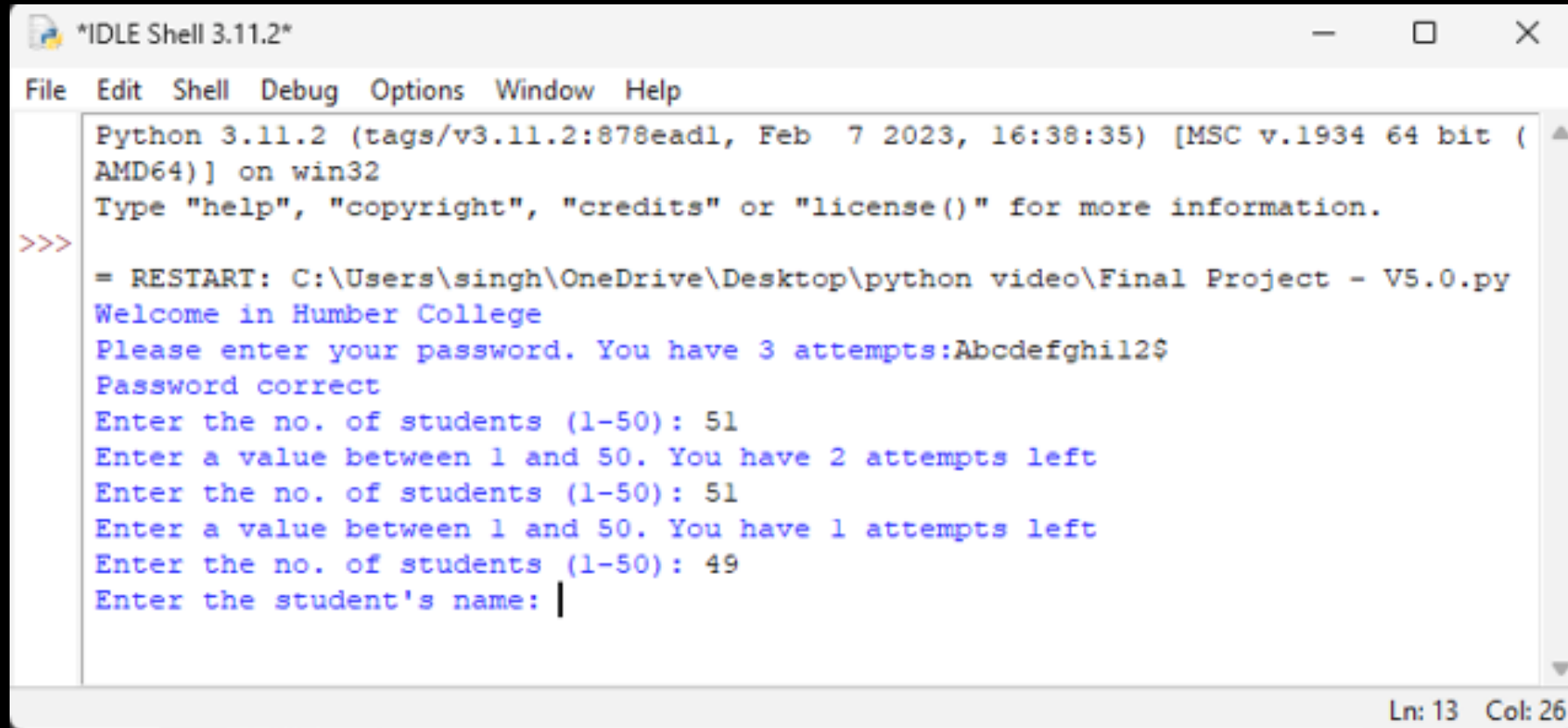
===== RESTART: /Users/prasanna
Welcome in Humber College
Enter Password:H
```


NUMBER OF STUDENTS INPUT – *All Wrong Attempts*

```
IDLE Shell 3.11.2
File Edit Shell Debug Options Window Help
Python 3.11.2 (tags/v3.11.2:878ead1, Feb  7 2023, 16:38:35) [MSC v.1934 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\singh\OneDrive\Desktop\python video\Final Project - V5.0.py
Welcome in Humber College
Please enter your password. You have 3 attempts:Abcdefghil2#
Password correct
Enter the no. of students (1-50): 51
Enter a value between 1 and 50. You have 2 attempts left
Enter the no. of students (1-50): 51
Enter a value between 1 and 50. You have 1 attempts left
Enter the no. of students (1-50): 51
Maximum attempts exceeded.
>>> |
```

Ln: 14 Col: 0

NUMBER OF STUDENTS INPUT – 2 *Wrong Attempts*, 1 *Correct Attempt*



```
*IDLE Shell 3.11.2*
File Edit Shell Debug Options Window Help
Python 3.11.2 (tags/v3.11.2:878ead1, Feb  7 2023, 16:38:35) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\singh\OneDrive\Desktop\python video\Final Project - VS.0.py
Welcome in Humber College
Please enter your password. You have 3 attempts:Abcdefghil2$
Password correct
Enter the no. of students (1-50): 51
Enter a value between 1 and 50. You have 2 attempts left
Enter the no. of students (1-50): 51
Enter a value between 1 and 50. You have 1 attempts left
Enter the no. of students (1-50): 49
Enter the student's name: |
Ln: 13 Col: 26
```

NAME & GRADE - All Wrong Attempts

Welcome in Humber College
Please enter your password. You have 3 attempts:Humber12!hahaha
password correct

Enter the no. of students (1-50): 88
Enter a value between 1 and 50. You have 2 attempts left
Enter the no. of students (1-50): 88
Enter a value between 1 and 50. You have 1 attempts left
Enter the no. of students (1-50): 80

Wrong

Maximum attempts exceeded.

= RESTART: /Users/angeliainge/Downloads/OneDrive_1_3-29-2023/Final Project (2).py

Welcome in Humber College

Please enter your password. You have 3 attempts:

Program automatically
restart to beginning

NAME & GRADE - 2 Wrong Attempts, 1 Correct Attempt

Please enter your password. You have 3 attempts:Humber12!hahaha
password correct

Enter the no. of students (1-50): 88

Enter a value between 1 and 50. You have 2 attempts left

Enter the no. of students (1-50): 88

Enter a value between 1 and 50. You have 1 attempts left

Enter the no. of students (1-50): 2

Correct

Enter the student's name: Ravneet

Input your mark in Math: 90

Input your mark in Science: 90

Input your mark in Language: 90

Input your mark in Drama: 90

Input your mark in Music: 90

Input your mark in Biology: 90

Enter the student's name: Harshit

Input your mark in Math: 90

Input your mark in Science: 90

Input your mark in Language: 90

Input your mark in Drama: 90

Input your mark in Music: 90

Input your mark in Biology: 90

Report no. 1:

Report printing function triggered

Wrong

NAME & GRADE - All Correct Attempts

Enter the no. of students (1-50): 5

Enter the student's name: Angelia

Input your mark in Math: 90

Input your mark in Science: 85

Input your mark in Language: 85

Input your mark in Drama: 75

Input your mark in Music: 95

Input your mark in Biology: 70

Enter the student's name: Sabrina

Input your mark in Math: 95

Input your mark in Science: 90

Input your mark in Language: 95

Input your mark in Drama: 75

Input your mark in Music: 90

Input your mark in Biology: 90

Enter the student's name: Ravneet

Input your mark in Math: 100

Input your mark in Science: 80

Input your mark in Language: 80

Input your mark in Drama: 75

Input your mark in Music: 90

Input your mark in Biology: 80

Enter the student's name: Harshit

Input your mark in Math: 100

Input your mark in Science: 100

Input your mark in Language: 100

Input your mark in Drama: 100

Input your mark in Music: 100

Input your mark in Biology: 100

Enter the student's name: Snehal

Input your mark in Math: 100

Input your mark in Science: 80

Input your mark in Language: 70

Input your mark in Drama: 80

Input your mark in Music: 70

Input your mark in Biology: 60

Report no. 1:

Report printing
function triggered

REPORT PRINTING

Print the **students name** and **schools they are assigned** to based on GPA calculation

Print the **breakdown of each school** and the **number of students accepted**

Print the **total number of students that are rejected**

Print the **breakdown of each school** and the **number of student accepted in percentage**

```
Enter the student's name: Ravneet
Input your mark in Math: 90
Input your mark in Science: 90
Input your mark in Language: 90
Input your mark in Drama: 90
Input your mark in Music: 90
Input your mark in Biology: 90
Enter the student's name: Harshit
Input your mark in Math: 90
Input your mark in Science: 90
Input your mark in Language: 90
Input your mark in Drama: 90
Input your mark in Music: 90
Input your mark in Biology: 90
```

Report No. 1:

```
Student no. 1 ('Ravneet', 'School of Engineering')
Student no. 2 ('Harshit', 'School of Engineering')
```

Report No. 2:

```
No. of students accepted in School of Engineering: 2
No. of students accepted in School of Business: 0
No. of students accepted in Law School: 0
```

Report No. 3:

```
No. of students who got rejected: 0
```

Report No. 4:

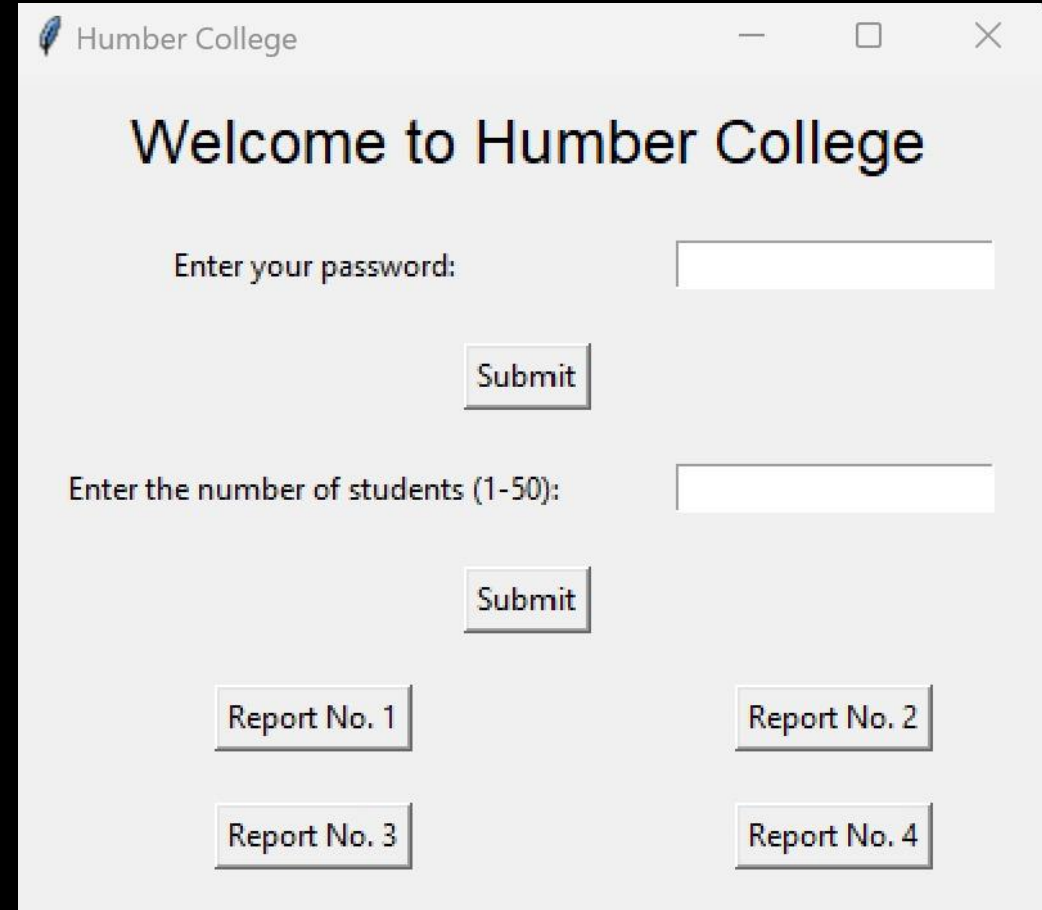
```
percentage of Students accepted in School of Engineering: 100.0
percentage of Students accepted in School of Business: 0.0
percentage of Students accepted in Law school: 0.0
percentage of Students Rejected: 0.0
```

SUGGESTIONS FOR HUMBER



SUGGESTIONS FOR VERSION 2.0

- DataFrames and Pandas library - For more efficient storage
- Data Validation for Grade Inputs - To avoid typos in grade entry
- GUI for Report Generation – so you don't have to code!



The screenshot shows a window titled "Humber College" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area has a heading "Welcome to Humber College". Below this, there are two input sections. The first section is for password entry, with the label "Enter your password:" followed by a text input field and a "Submit" button. The second section is for the number of students, with the label "Enter the number of students (1-50):" followed by a text input field and a "Submit" button. At the bottom of the window, there are four buttons arranged in a 2x2 grid, labeled "Report No. 1", "Report No. 2", "Report No. 3", and "Report No. 4".