

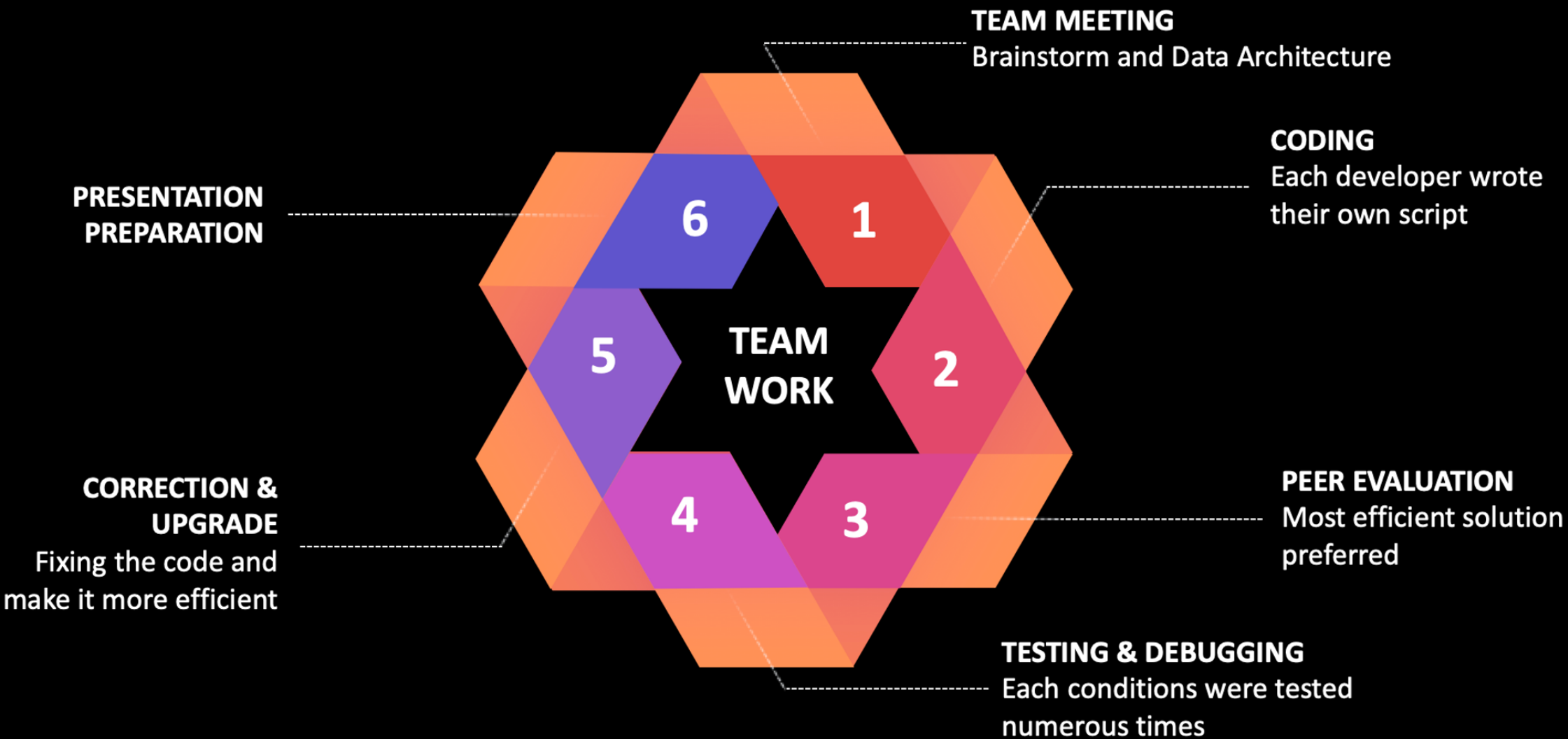
ORANGE SOLUTIONS

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

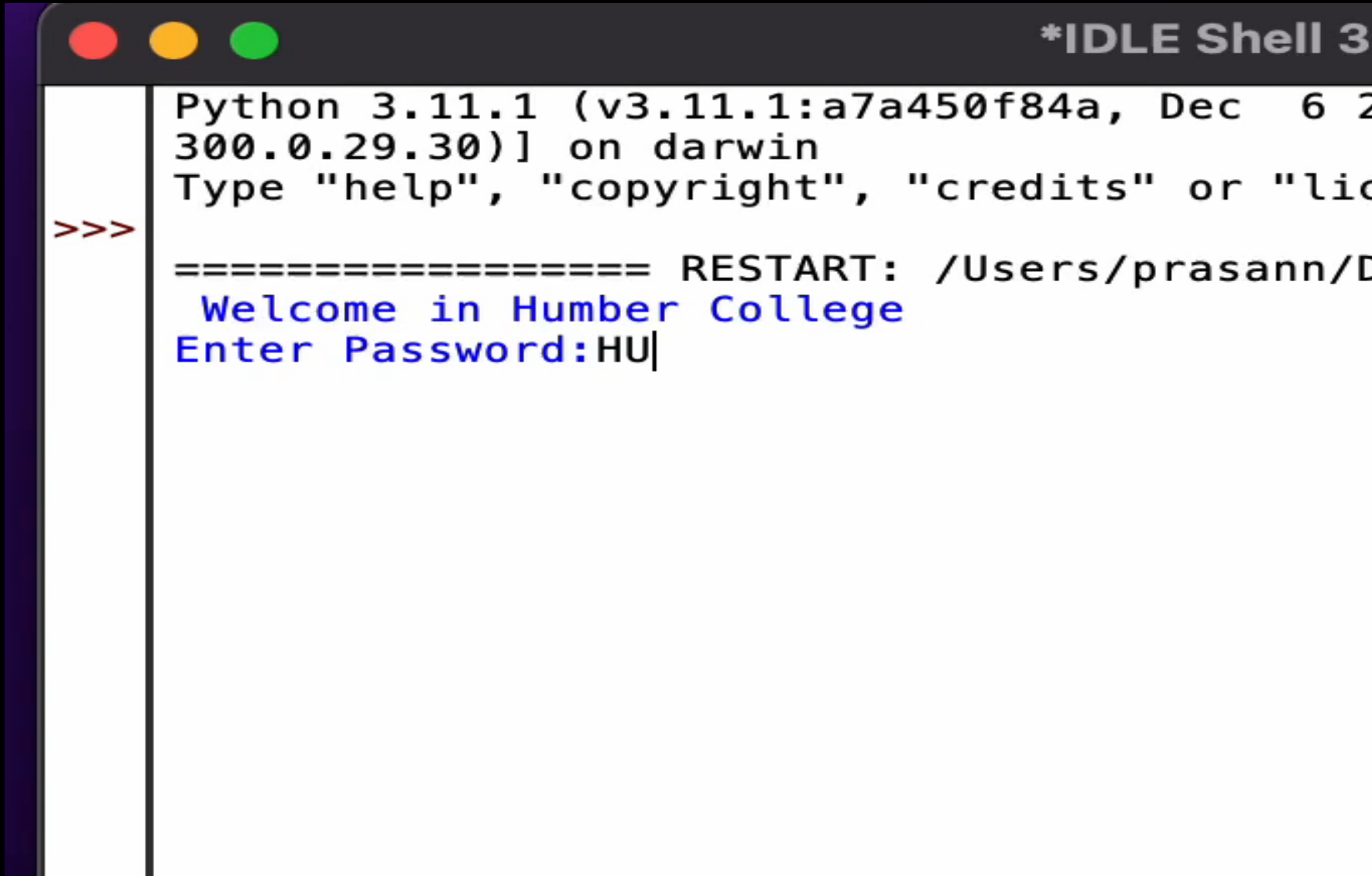
- Printing of Various Reports

RESULTS

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

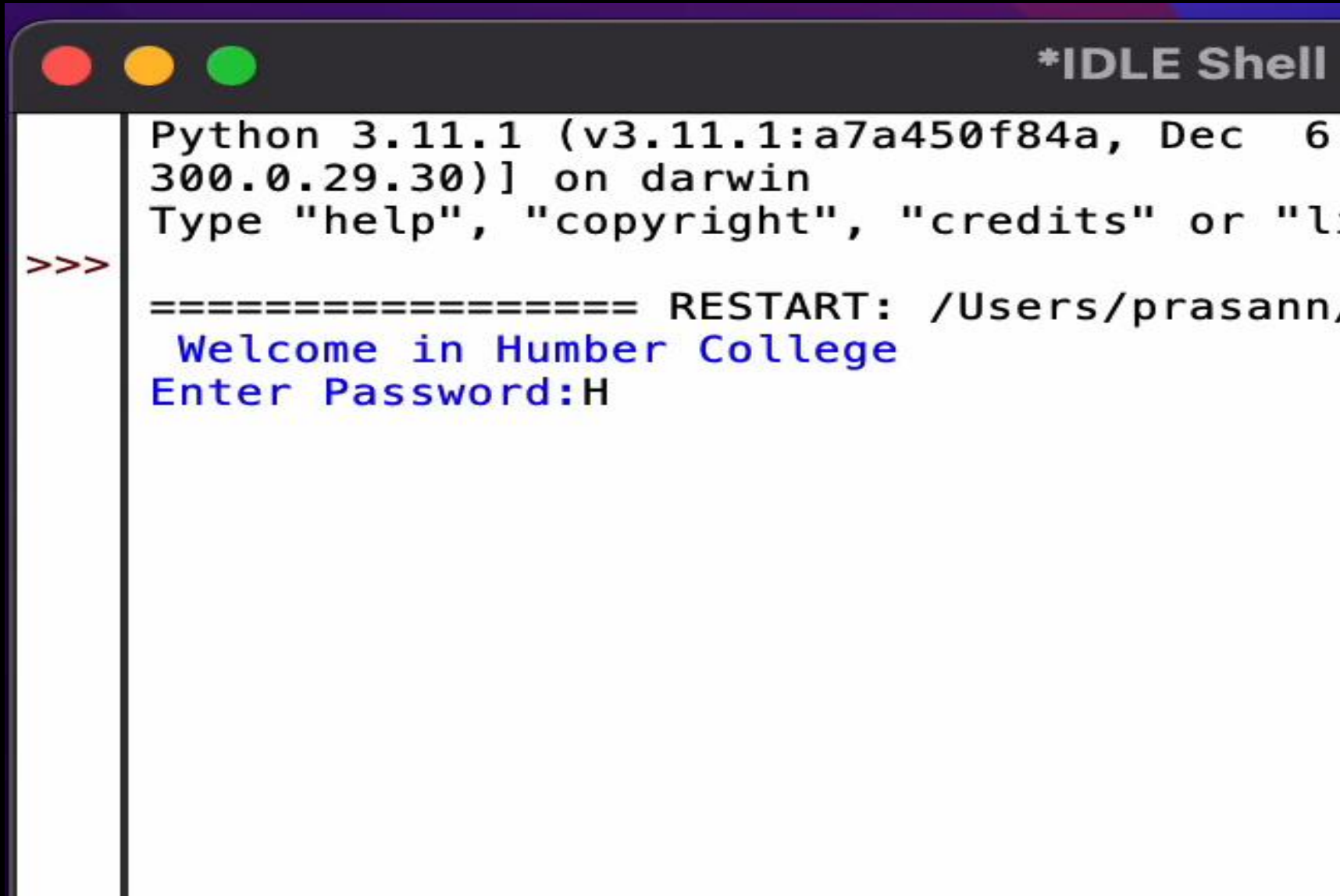


PASSWORD CHECKER - *All Wrong Attempts*



```
*IDLE Shell 3.11.1
Python 3.11.1 (v3.11.1:a7a450f84a, Dec 6 2022, 12:30:00.0.29.30) on darwin
Type "help", "copyright", "credits" or "license()" for more
>>>
===== 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
>>>

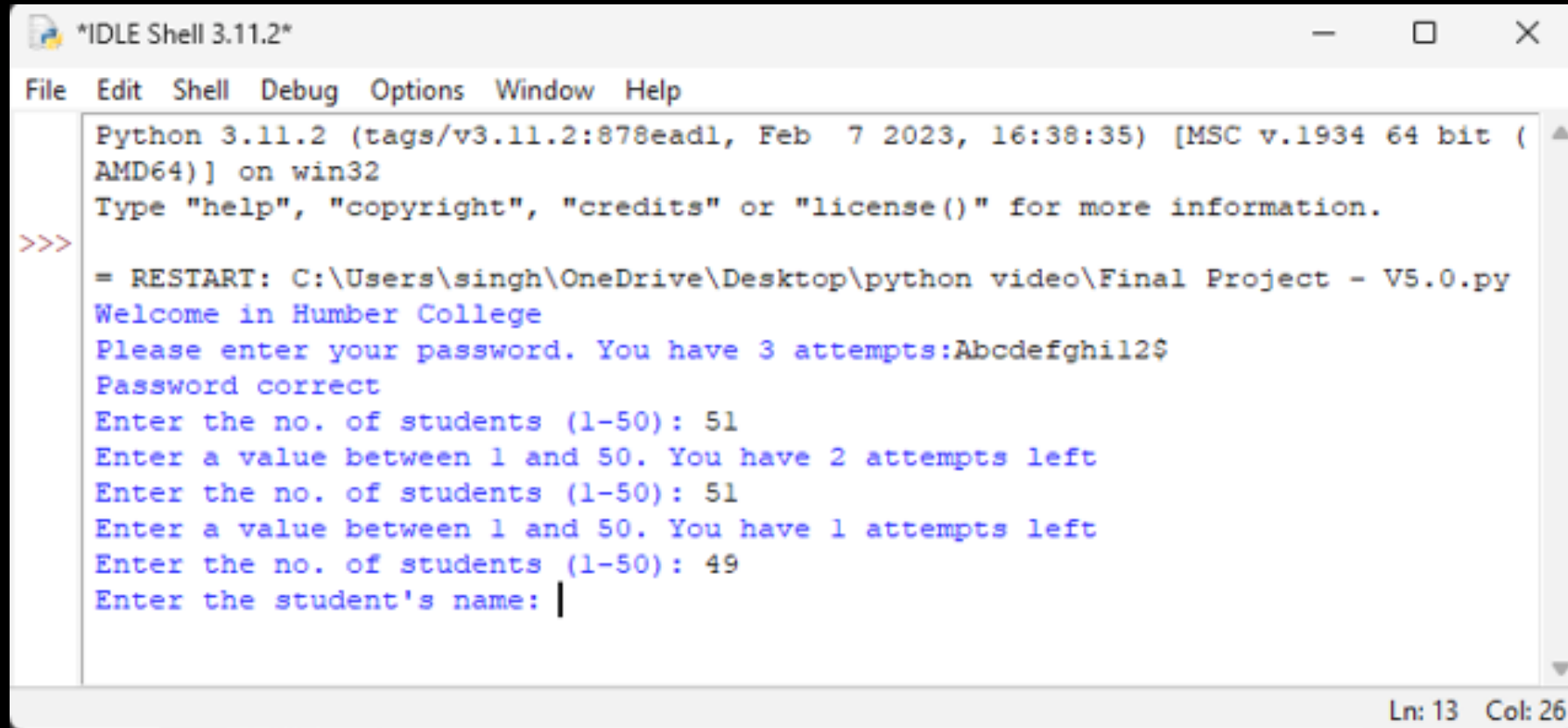
===== RESTART: /Users/prasanna
Welcome in Humber College
Enter Password:H
```


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:

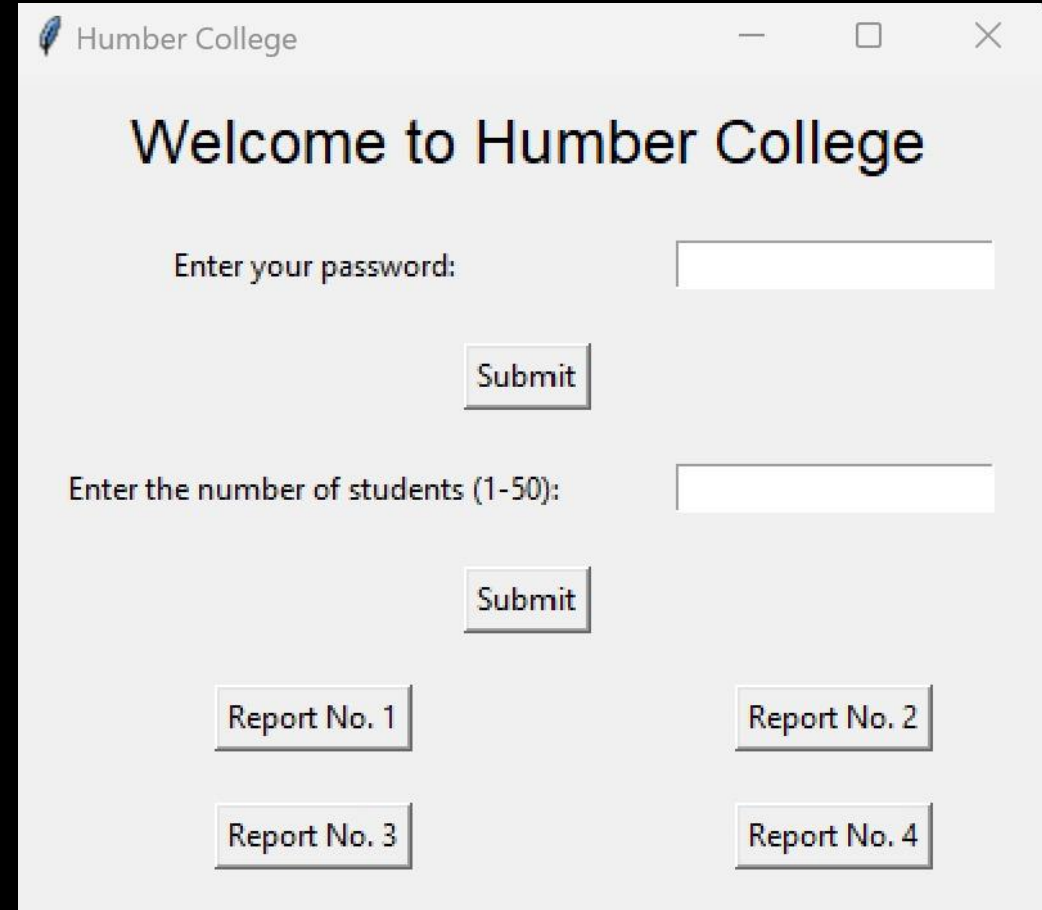
```
percentage of Students accepted in School of Engineering: 100.0
percentage of Students accepted in School of Business: 0.0
percentage of Students accepted in Law school: 0.0
percentage of Students Rejected: 0.0
```

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 standard window controls (minimize, maximize, close). The main heading is "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".