LEVEL 2

Task 1

```
import random

random_num = random.randint(1, 100)
print(" 🎯 Welcome to the Guessing Game! 🎲")
name = input("Enter Name = ")

uGuess = int(input(f"{name} Guess a number between 1 and 100: "))

while uGuess != random_num:
        if uGuess < random_num:
            print("Your guess number is too low! 📉")
        elif uGuess > random_num:
            print(" Your guess number is Too high!  📈")
        uGuess = int(input("Guess again: "))

print(f"Congratulations! {name} 🎉 You guessed the correct number!")
print("Computer Number =",random_num)
```

OutPut-

```
 🎯 Welcome to the Guessing Game! 🎲
Enter Name = Bhushan
Bhushan Guess a number between 1 and 100: 13
 Your guess number is Too high!  📈
Guess again: 10
 Your guess number is Too high!  📈
Guess again: 6
 Your guess number is Too high!  📈
Guess again: 8
 Your guess number is Too high!  📈
Guess again: 9
 Your guess number is Too high!  📈
Guess again: 6
 Your guess number is Too high!  📈
Guess again: 7
 Your guess number is Too high!  📈
Guess again: 5
Congratulations! Bhushan 🎉 You guessed the correct number!
Computer Number = 5
```

LEVEL 2

Task 2

```
import random

print("🎯Welcome to the Number Guesser Game! ")
print("Please Type Range 1 to 100 ")

lower_bond = int(input("Enter First Range = "))
upper_bond = int(input("Enter Second Range = "))
pc_number = random.randint(lower_bond,upper_bond)

while True:
    try:
        uGuess = int(input(f"Guess a number between {lower_bond} and
{upper_bond}: "))
    except ValueError:
        print("Invalid input. Please enter a valid number.")
        continue
    if uGuess == pc_number:
        print (f"🎉Congratulation ! You guessed the correct number {pc_number}.
")
        break
    elif uGuess < pc_number:
        print("Too low! Try again. 📉")
    else:
        print("Too high! Try again. 📈")
```

OutPut-

```
🎯Welcome to the Number Guesser Game!
Please Type Range 1 to 100
Enter First Range = 10
Enter Second Range = 20
Guess a number between 10 and 20: 15
Too low! Try again. 📉
Guess a number between 10 and 20: 17
🎉Congratulation ! You guessed the correct number 17.
PS C:\Users\cw\Desktop\Python Internship>
```

LEVEL 2

Task 3

```
import string
import getpass

def check_pass_strength():
    password = getpass.getpass('Enter your new password: ')
    strength = 0
    message = ''

    for char in password:
        if char in string.ascii_lowercase:
            strength += 1
        elif char in string.ascii_uppercase:
            strength += 1
        elif char in string.digits:
            strength += 1
        else:
            strength += 1

    if len(password) >= 8:
        strength += 1

    if strength == 1:
        message = 'Your password is very weak.'
    elif strength == 2:
        message = 'Your password is weak.'
    elif strength == 3:
        message = 'Your password is moderate. add special characters.'
    elif strength == 4:
        message = 'Your password is strong! Your account is well protected.'
    else:
        message = 'Your password does not meet the minimum requirements. Please
try again.'

    return message

if __name__ == "__main__":
    print("Welcome to Cognifyz the Password Strength Checker!")
    print("password mix of uppercase and lowercase letters, digits, and special
characters.")
    print("it should be at least 8 characters long.")

    while True:
        password_strength = check_pass_strength()
```

LEVEL 2

```
        print(password_strength)

        choice = input("Do you want to try another password? (yes/no): ").lower()
        if choice != 'yes':
            break

    print("Thank you for using the Password Strength Checker. Stay secure!")
```

OutPut-

```
Welcome to Cognifyz the Password Strength Checker!
password mix of uppercase and lowercase letters, digits, and special characters.
it should be at least 8 characters long.
Enter your new password:
Your password does not meet the minimum requirements. Please try again.
Do you want to try another password? (yes/no):
```

LEVEL 2

Task 4

```python
def fibonacci(n):
    if n == 0:
        return 0
    elif n == 1:
        return 1
    else:
        return fibonacci(n - 1) + fibonacci(n - 2)

def main():
    n = int(input("Enter the number of terms := "))
    for i in range(n):
        print(fibonacci(i))

if __name__=="__main__":
    main()
```

OutPut-

```
Enter the number of terms := 10
0
1
1
2
3
5
8
13
21
34
PS C:\Users\cw\Desktop\Python Internship>
```

LEVEL 2

Task 5

```
file_name = input("Enter the name of the file: ")
word_counts = {}

try:
    with open(file_name, 'r') as file:
        for line in file:
            words = line.strip().split()
            for word in words:
                # Remove punctuation & convert to lowercase
                word = word.strip(".,!?()[]{}\"'").lower()

                word_counts[word] = word_counts.get(word, 0) + 1

except FileNotFoundError:
    print("File not found. Please check the file name and try again.")
    exit()

sorted_word_counts = sorted(word_counts.items())

print("Word\t\t\tCount")
for word, count in sorted_word_counts:
    print(f"{word}\t\t\t{count}")
```

OutPut-

```
Enter the name of the file: Bhushan.txt
File not found. Please check the file name and try again.
PS C:\Users\cw\Desktop\Python Internship>
```