```
In [4]: def login(password):
        stored_password = "password123" # Predefined password
        if password == stored password:
            return True
            print("Incorrect password.")
            return False
    def write_entry():
        entry = input("Write your diary entry: ")
        with open("diary.txt", "a") as file:
            file.write(entry + "\n")
    def read_entries():
        with open("diary.txt", "r") as file:
           entries = file.readlines()
           for entry in entries:
               print(entry.strip())
    def main():
        password = input("Enter password: ")
        if login(password):
            while True:
                 print("\n1. Write Diary Entry")
                 print("2. Read Diary Entries")
                print("3. Exit")
                choice = input("Enter your choice: ")
                 if choice == "1":
                    write_entry()
                elif choice == "2":
                    read entries()
                 elif choice == "3":
                    print("Exiting program.")
                    break
                else:
                    print("Invalid choice.")
    if __name__ == "__main__":
        main()
```

Enter password: password123

```
Write Diary Entry
Read Diary Entries
Exit
Enter your choice: 1
Write your diary entry: hii
Write Diary Entry
Read Diary Entries
Exit
Enter your choice: 2
Write Diary Entry
Read Diary Entry
Read Diary Entry
Read Diary Entries
Exit
Enter your choice: 3
Exiting program.
```