User Manual

User Manual

This program simulates a keypad driven combination lock. The keypad consists of A, B, C, D, or E. A password unlocks the lock but if the user gets the password incorrect 3 times, the alarm will sound.

1.   Executing the program

Turn on and boot your computer.

Insert the flash drive containing the program file Project3.exe in the appropriate drive. (We will assume it is the A drive, but it could be any drive. Substitute the appropriate letter where you see a:)

Enter the following at the prompt.

a:Project1

The prompt to enter the transition table will appear.

2.   Input

2.1   Input Requirements
The transition table file consists of seven states and five keys. The values in the table represent a transition from one state into another when a certain key is pressed when the program is in a given state.

The action table file consists similarly of seven states and five keys. The values in this table represent an action to take when a certain key is pressed when the program is in a given state.

The program will prompt the user to input a password. Valid characters include only A, B, C, D, and E.
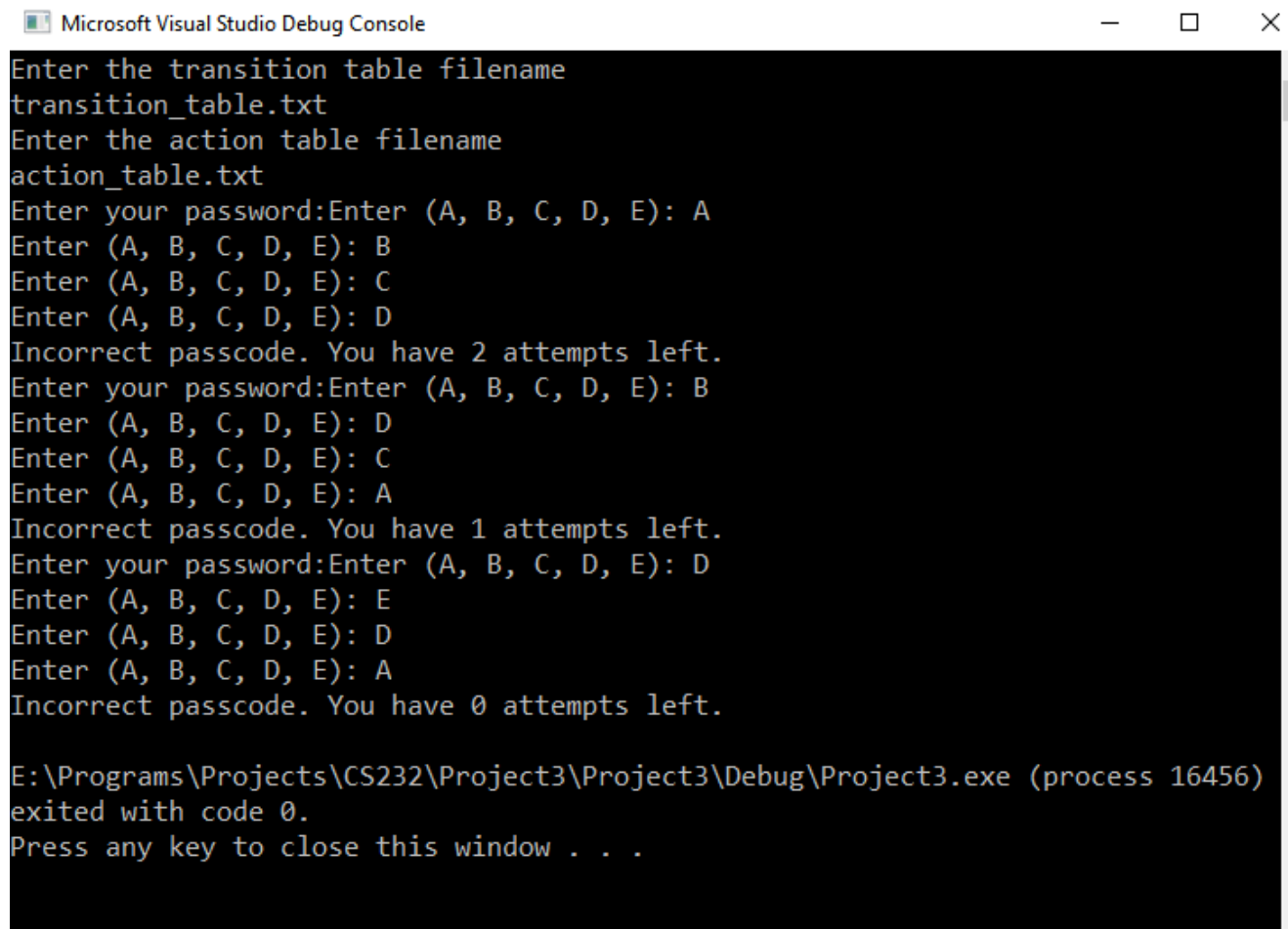
2.2   Input Restrictions
The transition and action table files must be properly formatted with exactly seven states and five key options.
When prompted for a password, single characters should be entered at a time. More than one character may result in undesired behavior. Any input other than the accepted characters A, B, C, D, or E will be rejected and the user prompted to re-enter their input.

3.   Output
The program will not provide feedback as the password is entered character by character. When four characters have been entered, the program will output either that the lock has been opened, implying a correctly entered password or that the user has a certain amount of attempts left, implying an incorrect password. If the user exceeds the accepted number of attempts, the program will output that the alarm has sounded and exit.

Example run

Microsoft Visual Studio Debug Console   —   □   ✕

```
Enter the transition table filename
transition_table.txt
Enter the action table filename
action_table.txt
Enter your password:Enter (A, B, C, D, E): A
Enter (A, B, C, D, E): B
Enter (A, B, C, D, E): C
Enter (A, B, C, D, E): D
Incorrect passcode. You have 2 attempts left.
Enter your password:Enter (A, B, C, D, E): B
Enter (A, B, C, D, E): D
Enter (A, B, C, D, E): C
Enter (A, B, C, D, E): A
Incorrect passcode. You have 1 attempts left.
Enter your password:Enter (A, B, C, D, E): D
Enter (A, B, C, D, E): E
Enter (A, B, C, D, E): D
Enter (A, B, C, D, E): A
Incorrect passcode. You have 0 attempts left.

E:\Programs\Projects\CS232\Project3\Project3\Debug\Project3.exe (process 16456)
exited with code 0.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console                    —    □    ×

Enter the transition table filename
transition_table.txt
Enter the action table filename
action_table.txt
Enter your password:Enter (A, B, C, D, E): A
Enter (A, B, C, D, E): B
Enter (A, B, C, D, E): D
Enter (A, B, C, D, E): C
Incorrect passcode. You have 2 attempts left.
Enter your password:Enter (A, B, C, D, E): B
Enter (A, B, C, D, E): A
Enter (A, B, C, D, E): D
Enter (A, B, C, D, E): D
Incorrect passcode. You have 1 attempts left.
Enter your password:Enter (A, B, C, D, E): B
Enter (A, B, C, D, E): A
Enter (A, B, C, D, E): A
Enter (A, B, C, D, E): D
The lock is now open.

E:\Programs\Projects\CS232\Project3\Project3\Debug\Project3.exe (process 15832)
exited with code 0.
Press any key to close this window . . .
```