

**Department of Artificial Intelligence and Multimedia Gaming
Fundamentals of Programming**

(Fall-2025)

LAB No. 04

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Section: D

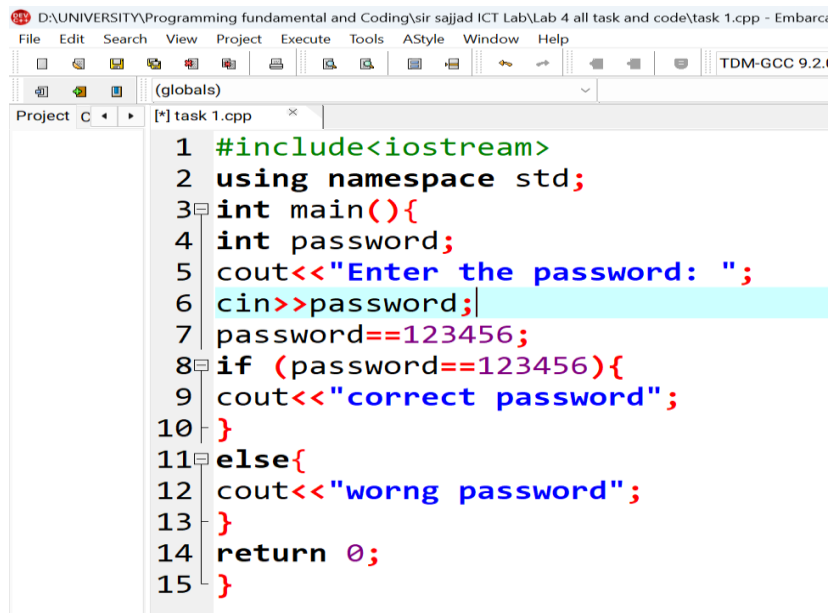
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LAB No. 04

Task 1:

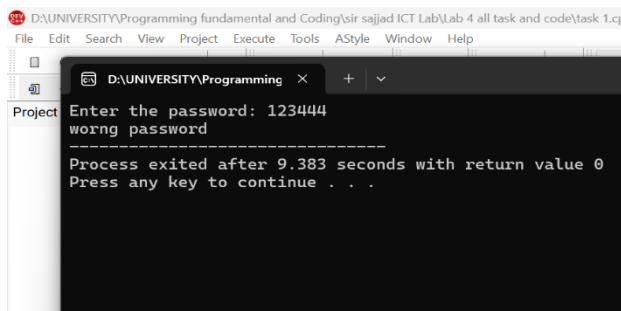
Write a program that asks the user password to open the lock, if the password is correct: Let the user know that the entered password is correct. Else inform him that the password is incorrect.

Code:

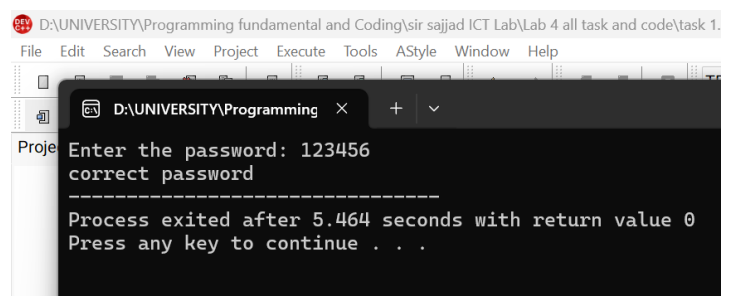


```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int password;
5     cout<<"Enter the password: ";
6     cin>>password;
7     password==123456;
8     if (password==123456){
9         cout<<"correct password";
10    }
11    else{
12        cout<<"worng password";
13    }
14    return 0;
15 }
```

Output:



```
Enter the password: 123444
worng password
-----
Process exited after 9.383 seconds with return value 0
Press any key to continue . . .
```

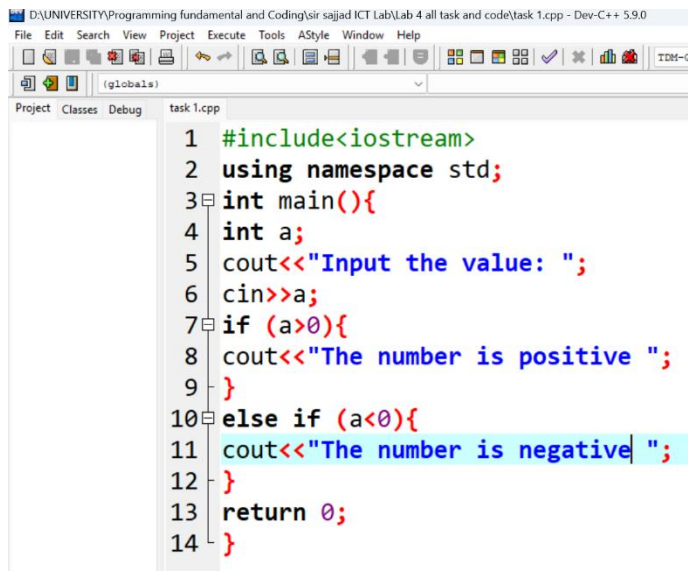


```
Enter the password: 123456
correct password
-----
Process exited after 5.464 seconds with return value 0
Press any key to continue . . .
```

Task 2:

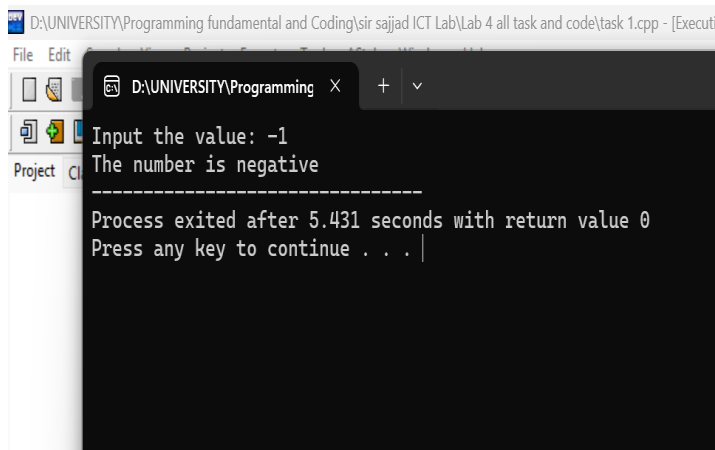
1. Write C++ Program which takes a number as an input from the user and checks whether it is a positive or negative number, and accordingly the message is displayed on console screen.

Code:

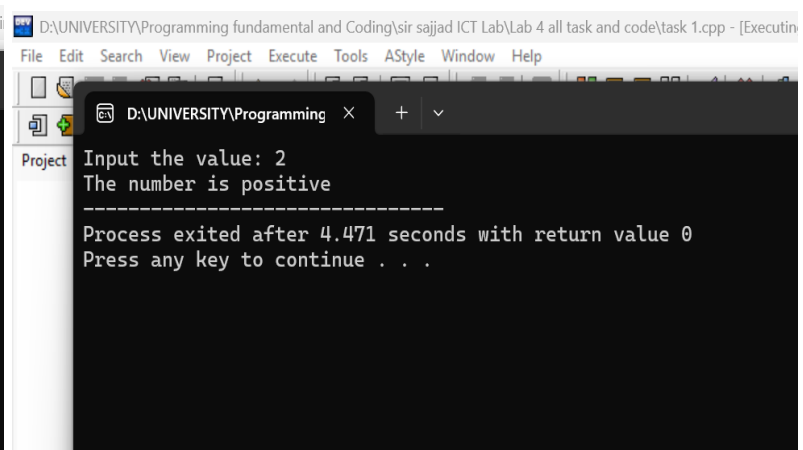


```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int a;
5     cout<<"Input the value: ";
6     cin>>a;
7     if (a>0){
8         cout<<"The number is positive ";
9     }
10    else if (a<0){
11        cout<<"The number is negative ";
12    }
13    return 0;
14 }
```

Output:



```
D:\UNIVERSITY\Programming x + v
Input the value: -1
The number is negative
-----
Process exited after 5.431 seconds with return value 0
Press any key to continue . . .
```

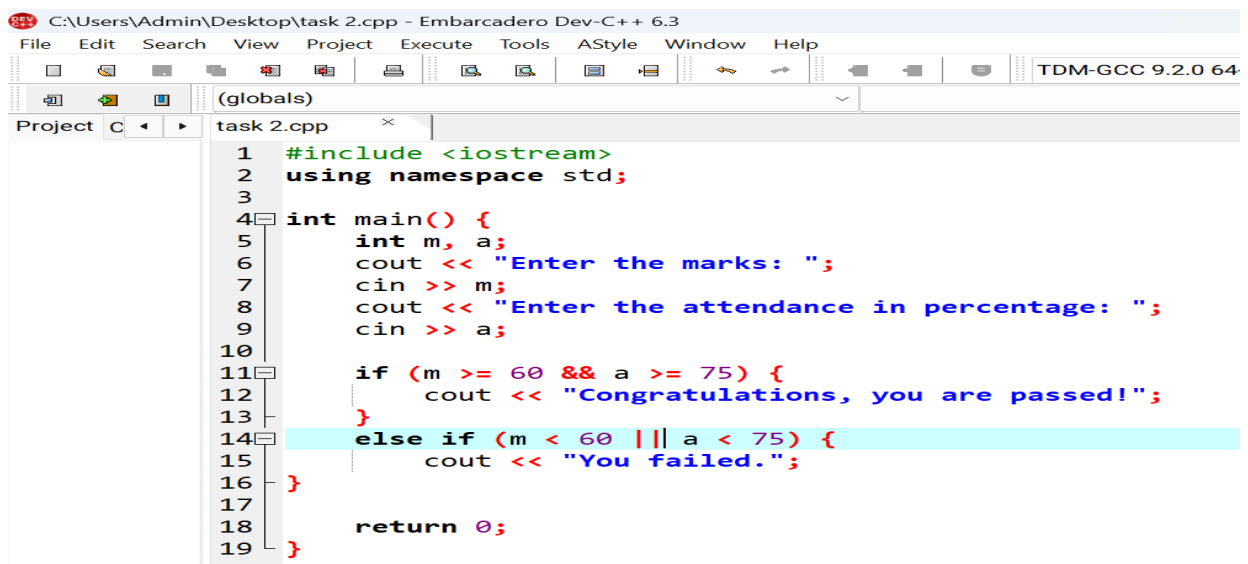


```
D:\UNIVERSITY\Programming x + v
Input the value: 2
The number is positive
-----
Process exited after 4.471 seconds with return value 0
Press any key to continue . . .
```

Task: 3

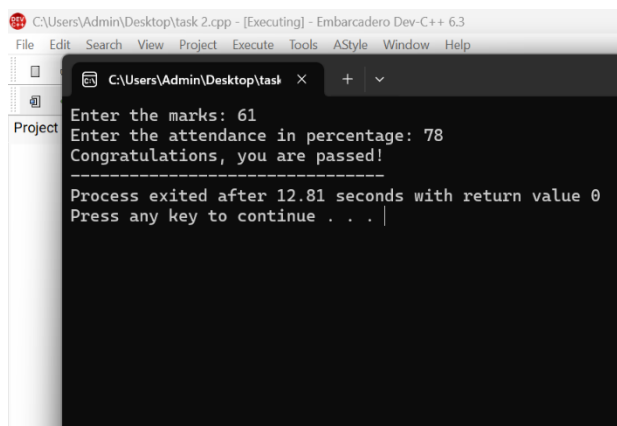
Write C++ Code which takes marks of student and attendance percentage as input from the user, and display's whether student is pass or fail in exam, remember a student must obtain at least 60 marks and 75% attendance to pass the subject, after checking the program should display appropriate message.

Code:

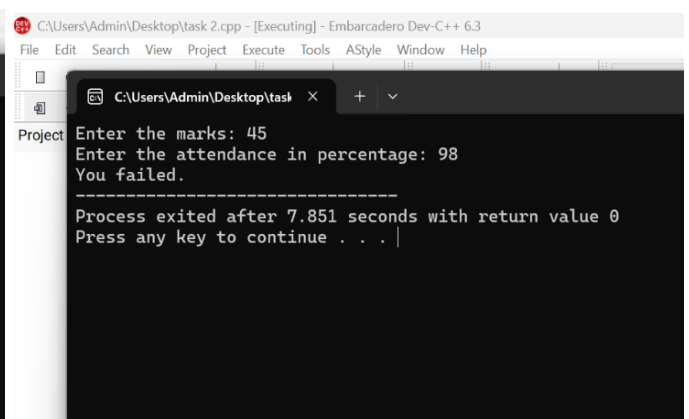


```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int m, a;
6     cout << "Enter the marks: ";
7     cin >> m;
8     cout << "Enter the attendance in percentage: ";
9     cin >> a;
10
11     if (m >= 60 && a >= 75) {
12         cout << "Congratulations, you are passed!";
13     }
14     else if (m < 60 || a < 75) {
15         cout << "You failed.";
16     }
17
18     return 0;
19 }
```

Output:



```
Enter the marks: 61
Enter the attendance in percentage: 78
Congratulations, you are passed!
-----
Process exited after 12.81 seconds with return value 0
Press any key to continue . . .
```

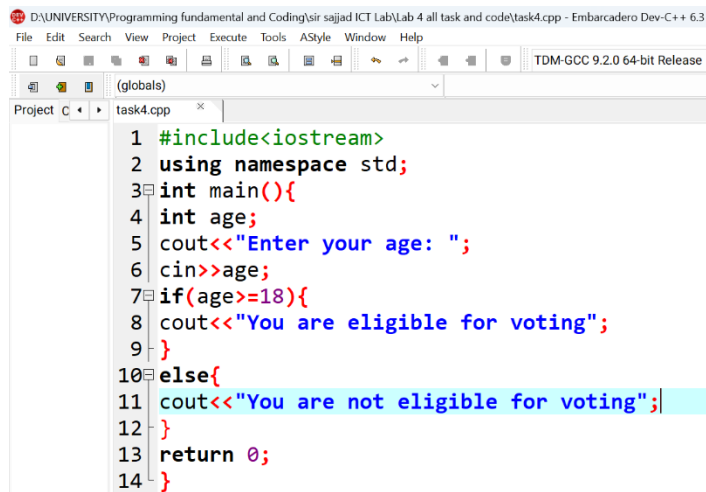


```
Enter the marks: 45
Enter the attendance in percentage: 98
You failed.
-----
Process exited after 7.851 seconds with return value 0
Press any key to continue . . .
```

Task-4

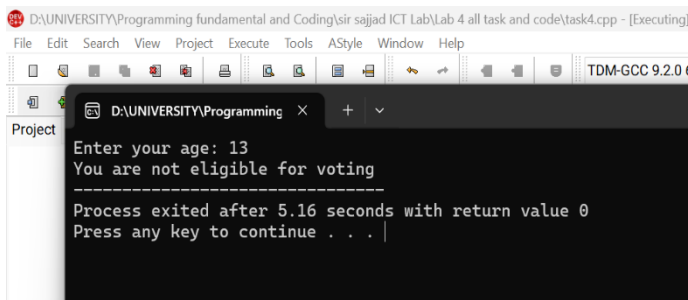
Write C++ Program that asks the user for their age and citizenship status and determine that they are eligible for voting or not, for voting a person must be older than 18 years and must be a Pakistani Citizen

Code:

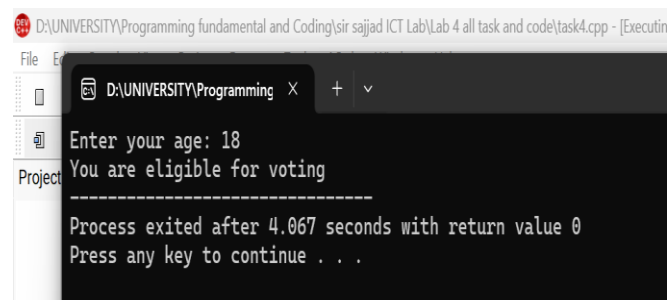
A screenshot of a code editor window titled "D:\UNIVERSITY\Programming fundamental and Coding\sir sajjad ICT Lab\Lab 4 all task and code\task4.cpp - Embarcadero Dev-C++ 6.3". The editor shows a C++ program that prompts the user for their age and checks if they are eligible for voting based on being 18 or older. The code is as follows:

```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int age;
5     cout<<"Enter your age: ";
6     cin>>age;
7     if(age>=18){
8         cout<<"You are eligible for voting";
9     }
10    else{
11        cout<<"You are not eligible for voting";
12    }
13    return 0;
14 }
```

Output:

A screenshot of the program's output in a terminal window. The user entered the age 13, and the program outputted "You are not eligible for voting". The terminal text is:

```
Enter your age: 13
You are not eligible for voting
-----
Process exited after 5.16 seconds with return value 0
Press any key to continue . . .
```

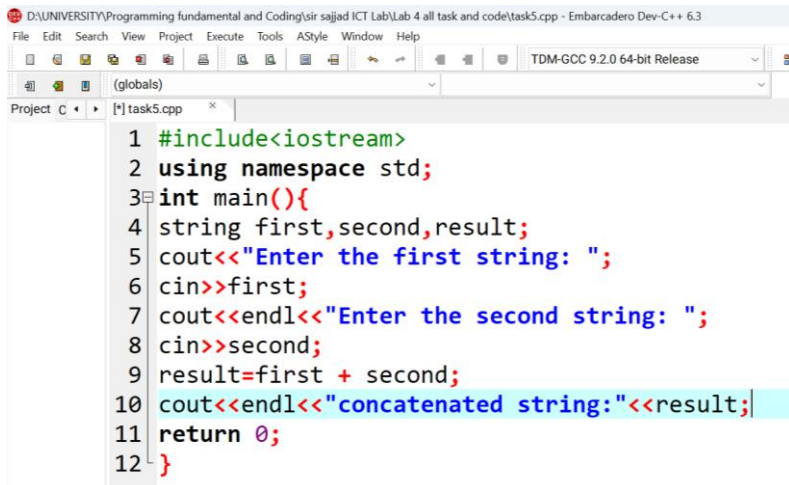
A screenshot of the program's output in a terminal window. The user entered the age 18, and the program outputted "You are eligible for voting". The terminal text is:

```
Enter your age: 18
You are eligible for voting
-----
Process exited after 4.067 seconds with return value 0
Press any key to continue . . .
```

Task-5

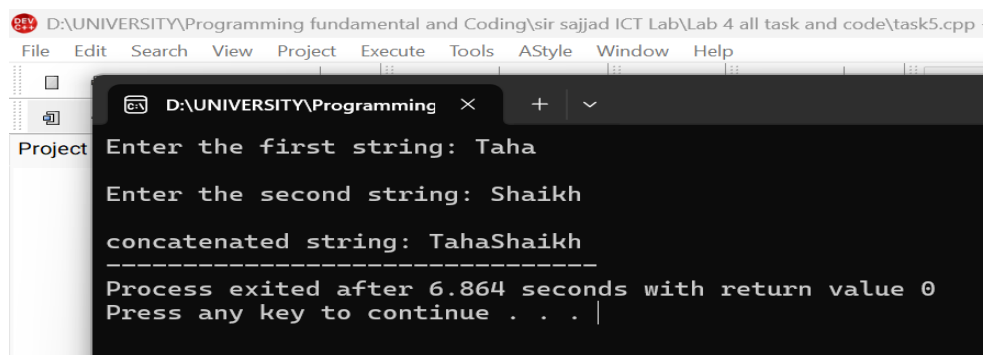
Write a C++ Program which prompts user to input two strings, concatenate them and store the result in a third variable

Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     string first,second,result;
5     cout<<"Enter the first string: ";
6     cin>>first;
7     cout<<endl<<"Enter the second string: ";
8     cin>>second;
9     result=first + second;
10    cout<<endl<<"concatenated string:"<<result;
11    return 0;
12 }
```

Output:



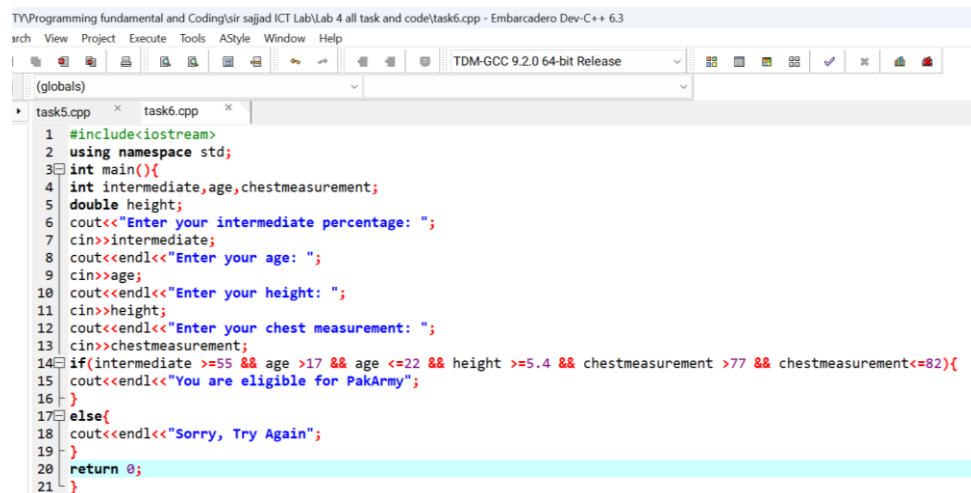
```
D:\UNIVERSITY\Programming
Enter the first string: Taha
Enter the second string: Shaikh
concatenated string: TahaShaikh
-----
Process exited after 6.864 seconds with return value 0
Press any key to continue . . .
```

Task-6

Write a C++ Program which checks if the user is eligible for entering army or not, the program takes following inputs:

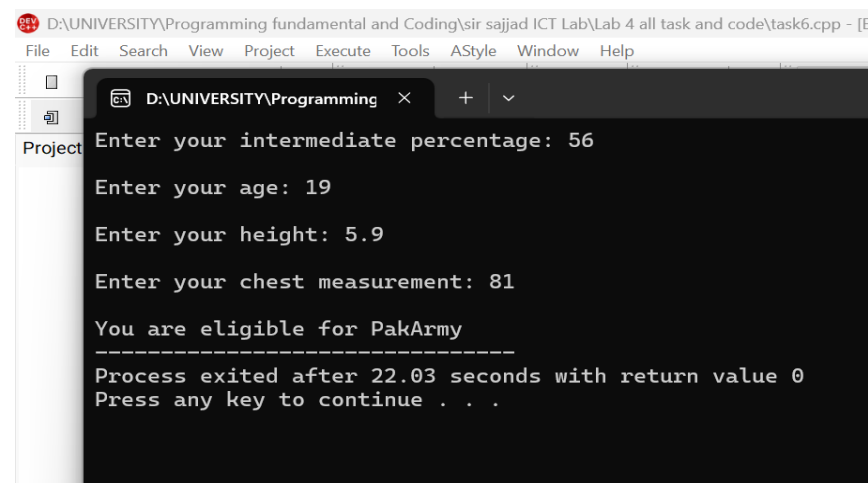
1. Intermediate Percentage 2. Age 3. Height 4. Chest measurement
Entry is only allowed when intermediate percentage is at least 55%, age is between 17-22 years, height must be minimum 5.4 and chest measurement is between 77-82cm, If all the conditions are satisfied “You are eligible for PakArmy” is Displayed, otherwise “Sorry, Try Again” is displayed.

Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int intermediate,age,chestmeasurement;
5     double height;
6     cout<<"Enter your intermediate percentage: ";
7     cin>>intermediate;
8     cout<<endl<<"Enter your age: ";
9     cin>>age;
10    cout<<endl<<"Enter your height: ";
11    cin>>height;
12    cout<<endl<<"Enter your chest measurement: ";
13    cin>>chestmeasurement;
14    if(intermediate >=55 && age >17 && age <=22 && height >=5.4 && chestmeasurement >77 && chestmeasurement<=82){
15        cout<<endl<<"You are eligible for PakArmy";
16    }
17    else{
18        cout<<endl<<"Sorry, Try Again";
19    }
20    return 0;
21 }
```

Output:



```
D:\UNIVERSITY\Programming fundamental and Coding\sir sajjad ICT Lab\Lab 4 all task and code\task6.cpp - [E
File Edit Search View Project Execute Tools AStyle Window Help
D:\UNIVERSITY\Programming x + v
Project
Enter your intermediate percentage: 56
Enter your age: 19
Enter your height: 5.9
Enter your chest measurement: 81
You are eligible for PakArmy
-----
Process exited after 22.03 seconds with return value 0
Press any key to continue . . .
```