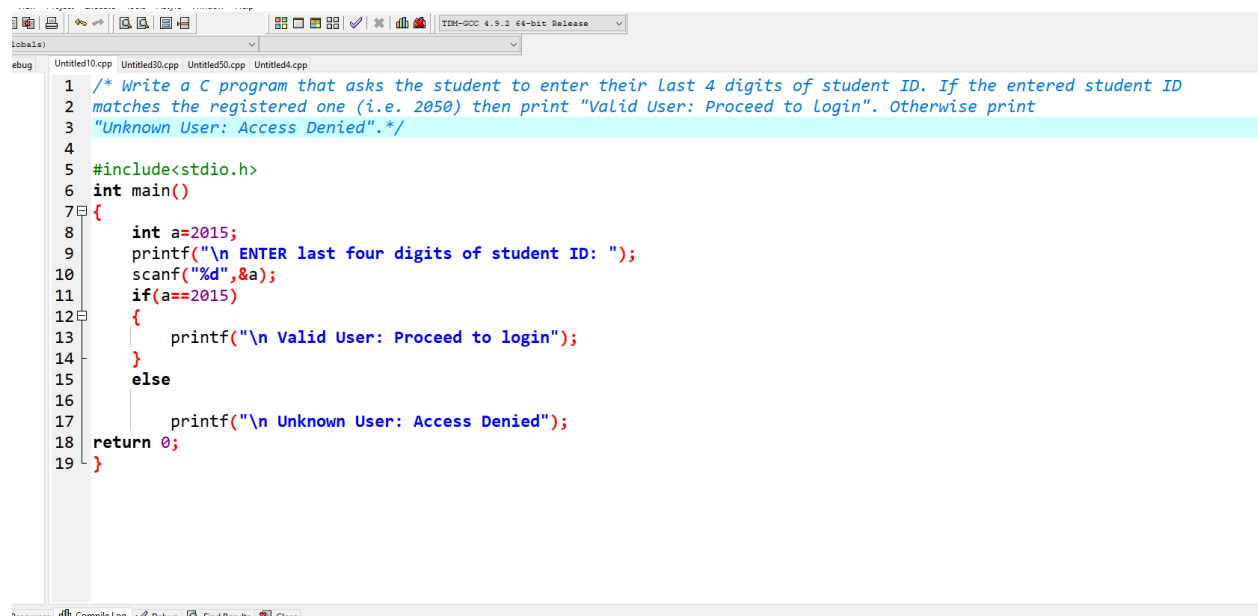# LAB:04

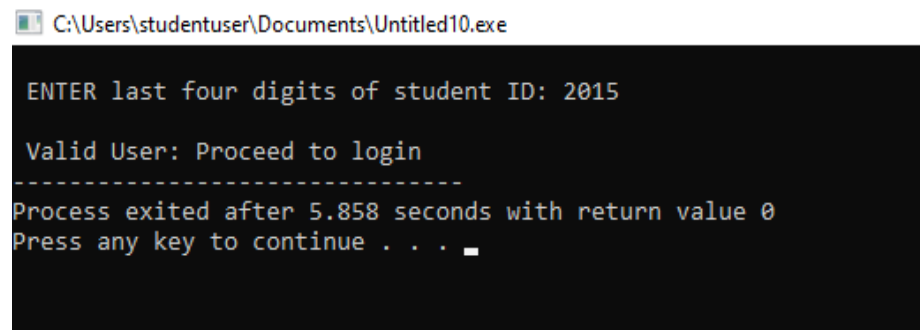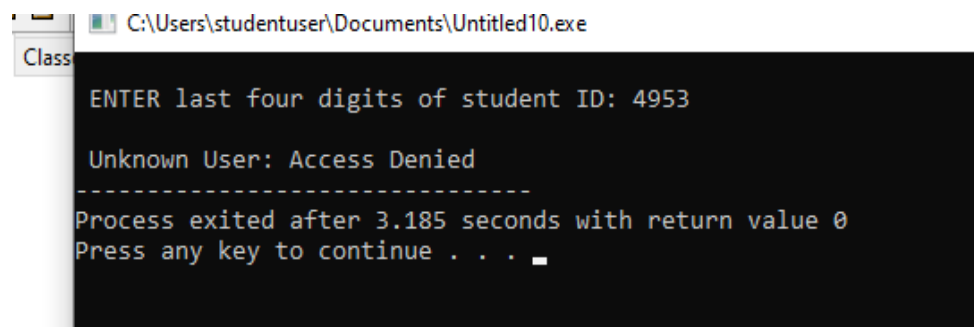## Q1:-

Source code:-

```
/* Write a C program that asks the student to enter their last 4 digits of student ID. If the entered student ID
matches the registered one (i.e. 2050) then print "Valid User: Proceed to login". Otherwise print
"Unknown User: Access Denied".*/

#include<stdio.h>
int main()
{
    int a=2015;
    printf("\n ENTER last four digits of student ID: ");
    scanf("%d",&a);
    if(a==2015)
    {
        printf("\n Valid User: Proceed to login");
    }
    else

        printf("\n Unknown User: Access Denied");
return 0;
}
```

OUTPUT:-
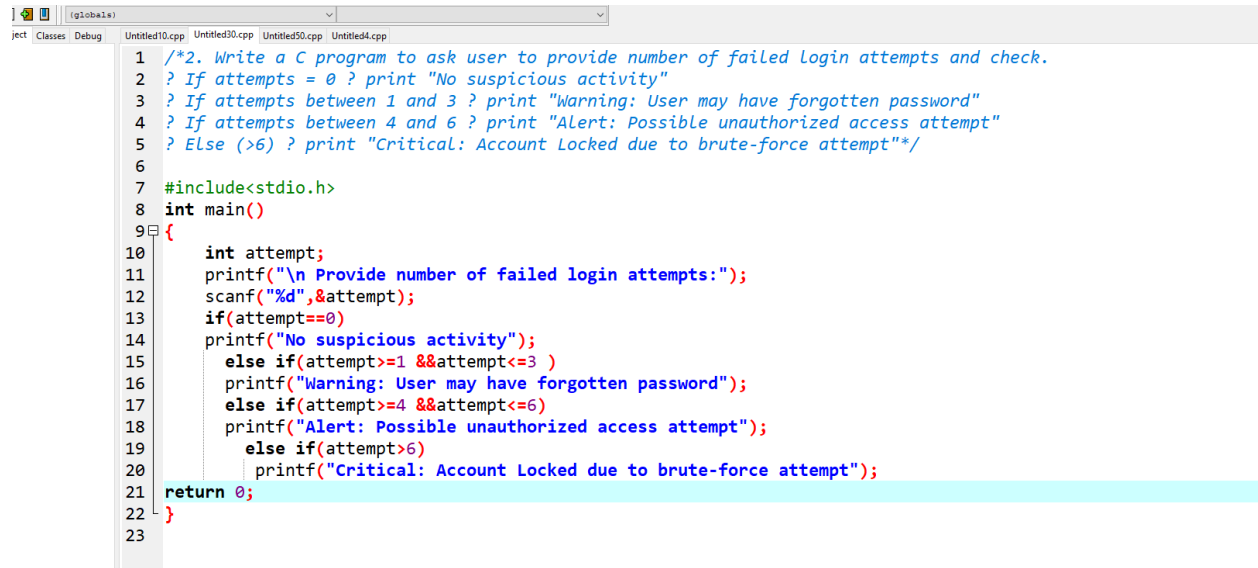
C:\Users\studentuser\Documents\Untitled10.exe

```
ENTER last four digits of student ID: 2015

Valid User: Proceed to login
------------------------------------
Process exited after 5.858 seconds with return value 0
Press any key to continue . . .
```

C:\Users\studentuser\Documents\Untitled10.exe

```
ENTER last four digits of student ID: 4953

Unknown User: Access Denied
---------------------------------
Process exited after 3.185 seconds with return value 0
Press any key to continue . . .
```
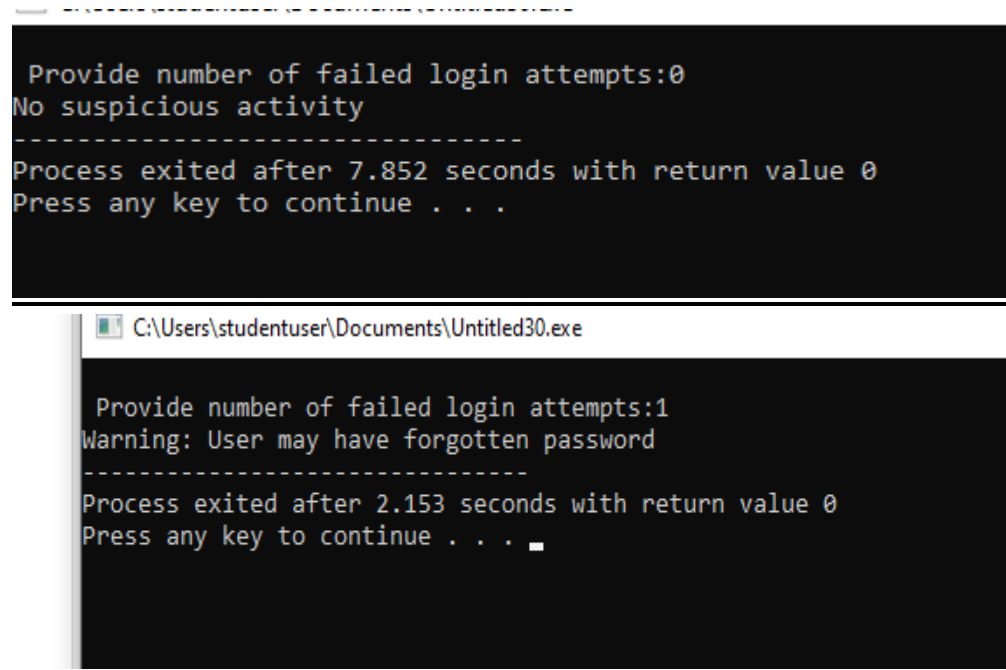
Q2:-

Source code:-

```
/*2. Write a C program to ask user to provide number of failed login attempts and check.
? If attempts = 0 ? print "No suspicious activity"
? If attempts between 1 and 3 ? print "Warning: User may have forgotten password"
? If attempts between 4 and 6 ? print "Alert: Possible unauthorized access attempt"
? Else (>6) ? print "Critical: Account Locked due to brute-force attempt"*/

#include<stdio.h>
int main()
{
    int attempt;
    printf("\n Provide number of failed login attempts:");
    scanf("%d",&attempt);
    if(attempt==0)
    printf("No suspicious activity");
      else if(attempt>=1 &&attempt<=3 )
      printf("Warning: User may have forgotten password");
      else if(attempt>=4 &&attempt<=6)
      printf("Alert: Possible unauthorized access attempt");
        else if(attempt>6)
        printf("Critical: Account Locked due to brute-force attempt");
return 0;
}
```

Output:-

```
 Provide number of failed login attempts:0
No suspicious activity
---------------------------------
Process exited after 7.852 seconds with return value 0
Press any key to continue . . .
```

C:\Users\studentuser\Documents\Untitled30.exe

```
 Provide number of failed login attempts:1
Warning: User may have forgotten password
---------------------------------
Process exited after 2.153 seconds with return value 0
Press any key to continue . . .
```

```
 Provide number of failed login attempts:4
Alert: Possible unauthorized access attempt
--------------------------------
Process exited after 2.765 seconds with return value 0
Press any key to continue . . .
```

```
 Provide number of failed login attempts:9
Critical: Account Locked due to brute-force attempt
--------------------------------
Process exited after 2.308 seconds with return value 0
Press any key to continue . . .
```

Q3:-

Source code:-

```c
/*Write a C program to classify the incident severity based on a severity code (1-4) entered by the security
analyst.
1 ? Low (Unusual login time)
2 ? Medium (Suspicious failed attempts)
3 ? High (Multiple accounts targeted)
4 ? Critical (Brute-force/DDoS attack detected) Default ? "Invalid Code: Enter a number between 1 and 4"*/
#include<stdio.h>
int main()
{
    int code;
    printf("\n ENTER THE SERVERITY CODE:");
    scanf("%d",&code);
    switch(code)
    {
        case 1:
        printf("\nLow (Unusual login time)");
        break;
        case 2:
        printf("\nMedium (Suspicious failed attempts)");
        break;
        case 3:
        printf("\nHigh (Multiple accounts targeted)");
        break;
        case 4:
        printf("\nCritical (Brute-force/DDoS attack detected)");
        break;
        default:
            printf("\n Invalid Code: Enter a number between 1 and 4");
    return 0;
    }}
```

Output:-

```
ENTER THE SERVERITY CODE:0

Invalid Code: Enter a number between 1 and 4
--------------------------------
rocess exited after 2.872 seconds with return value 0
ress any key to continue . . .
```

```
ENTER THE SERVERITY CODE:1

Low (Unusual login time)
--------------------------------
Process exited after 1.089 seconds with return value 0
Press any key to continue . . .
```

```
ENTER THE SERVERITY CODE:2

Medium (Suspicious failed attempts)
--------------------------------
Process exited after 1.621 seconds with return value 0
Press any key to continue . . .
```

```
ENTER THE SERVERITY CODE:3

High (Multiple accounts targeted)
--------------------------------
Process exited after 2.109 seconds with return value 0
Press any key to continue . . .
```

```
ENTER THE SERVERITY CODE:4

Critical (Brute-force/DDoS attack detected)
--------------------------------
Process exited after 1.277 seconds with return value 0
Press any key to continue . . . _
```