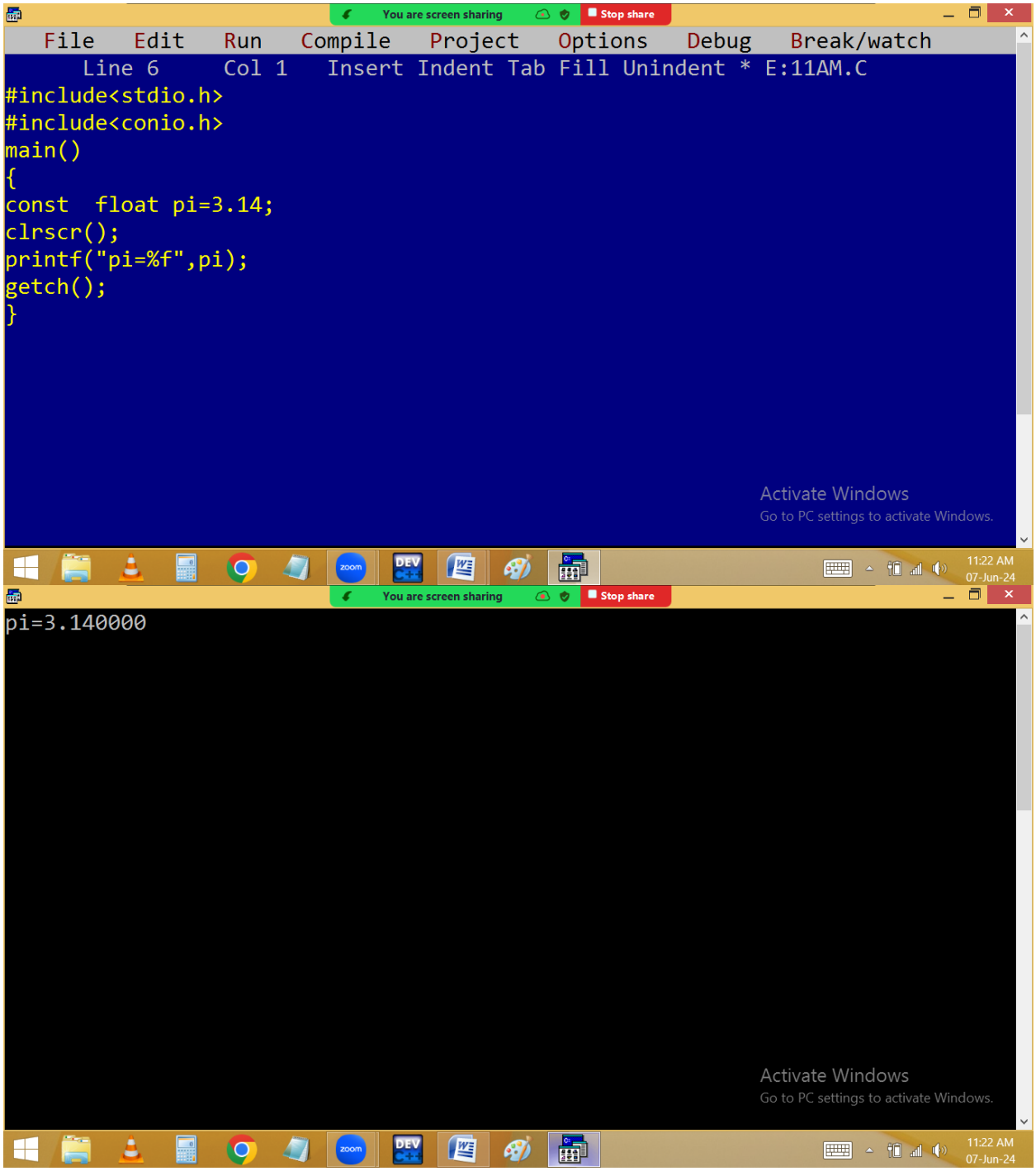
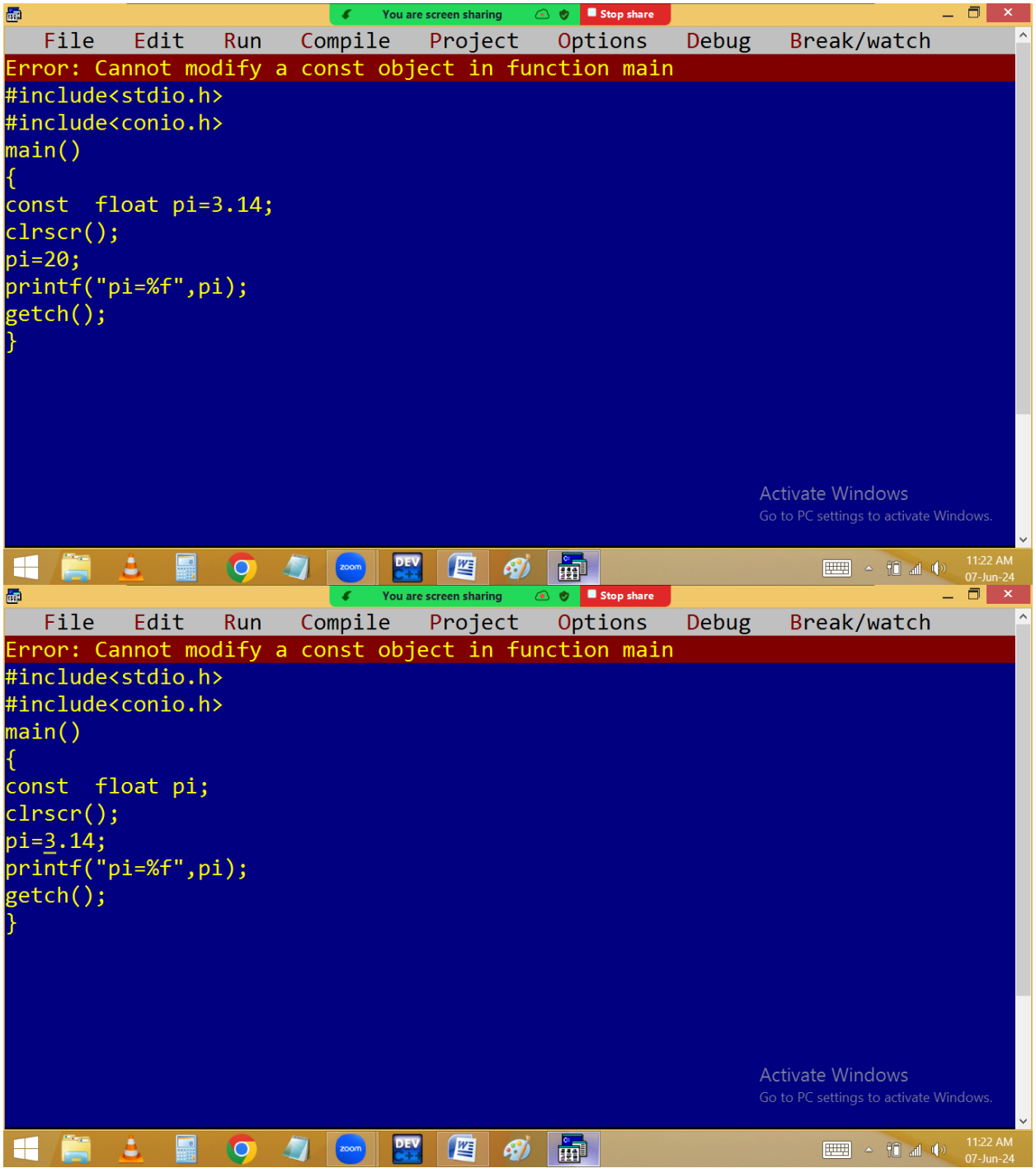

You are screen sharing
Stop share
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
main()
{
const float pi=3.14;
clrscr();
printf("pi=%f",pi);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
11:22 AM
07-Jun-24
You are screen sharing
Stop share
pi=3.140000
Activate Windows
Go to PC settings to activate Windows.
11:22 AM
07-Jun-24



Numerical constants:

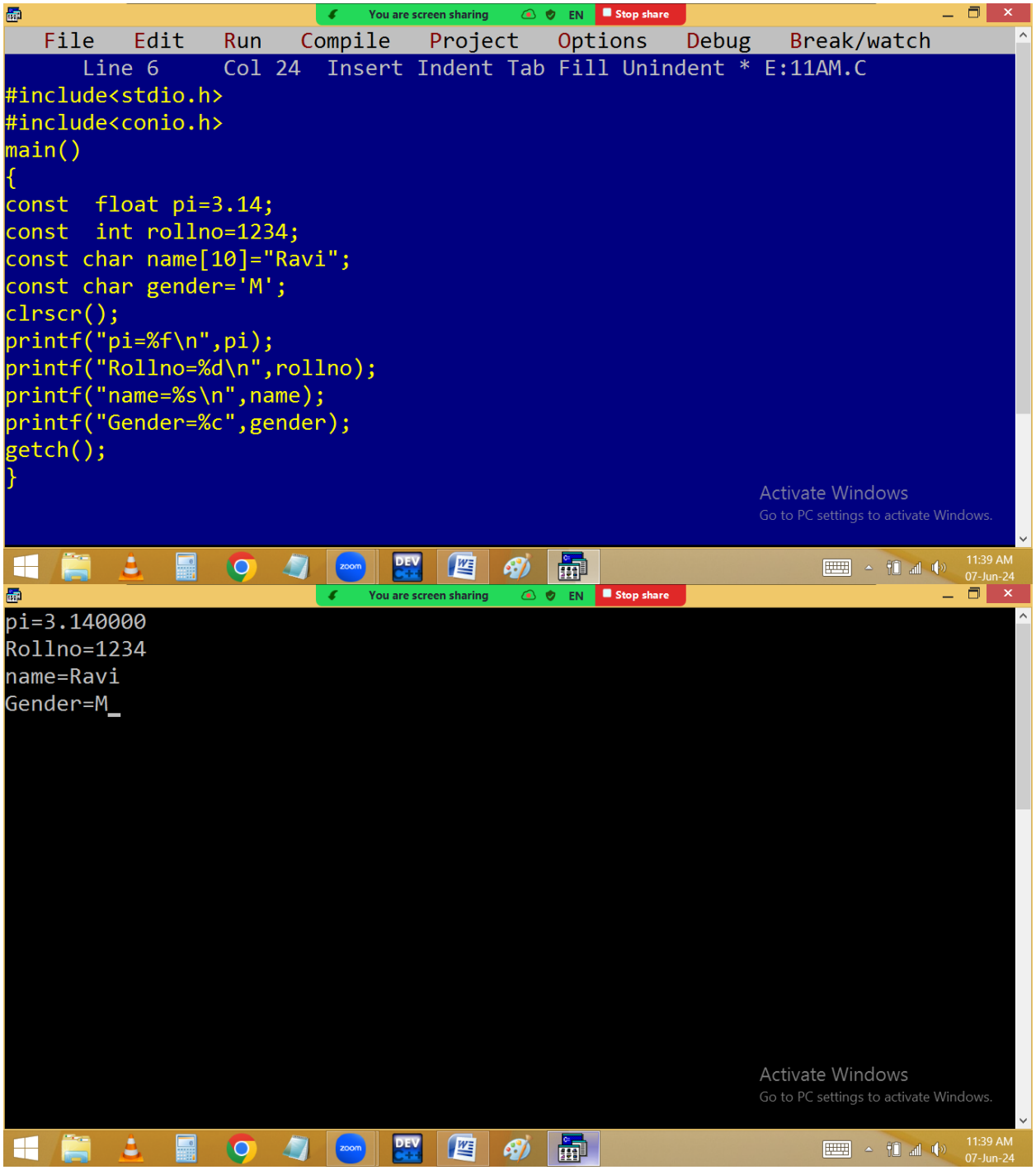
const int rollno = 1234;

const float pi = 3.14;

character constants:

char name**[10]**=**”Ravi”**; string constant

char gender=**’M’**; char constant



3. Identifiers:

Identifiers are nothing but names of variables, functions, files etc.

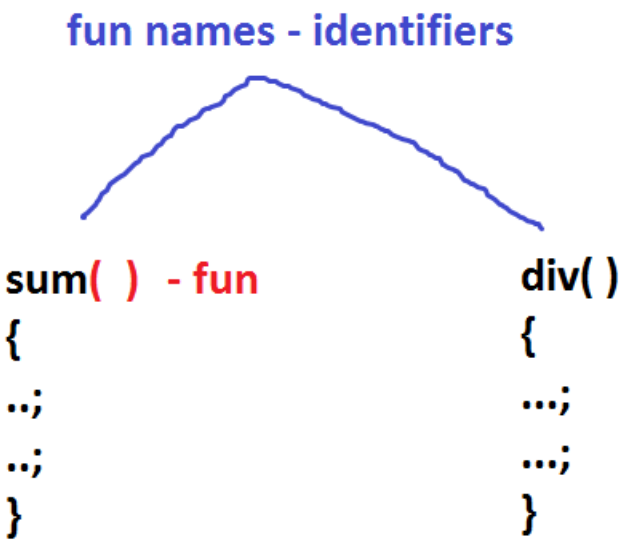
Example for variables:

int a=10; ==> a is used to identify the 10. hence a is an identifier
int b=20; ==> b is used to identify the 20. hence b is an identifier

a is used to store the value 10. i.e. a is a container and containers are called variables.

a and b are used to identify the variables. hence a and b are the names of variables.

Example for functions:

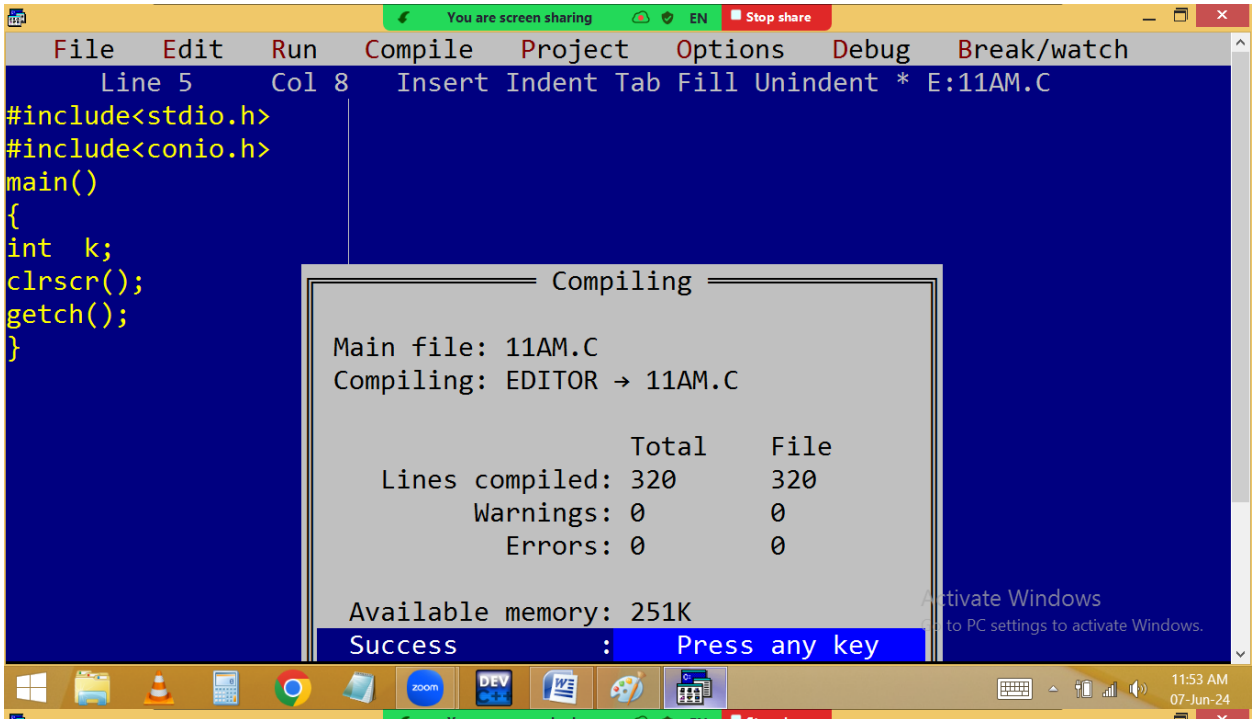


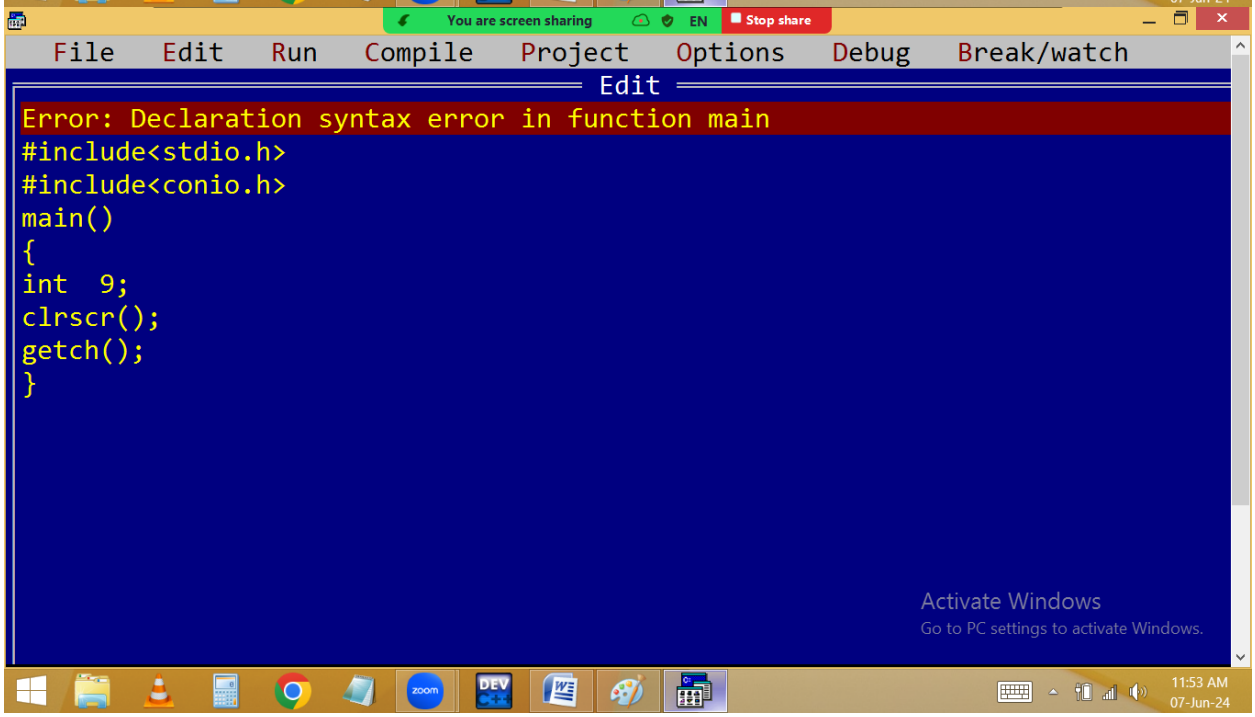
Example for files:

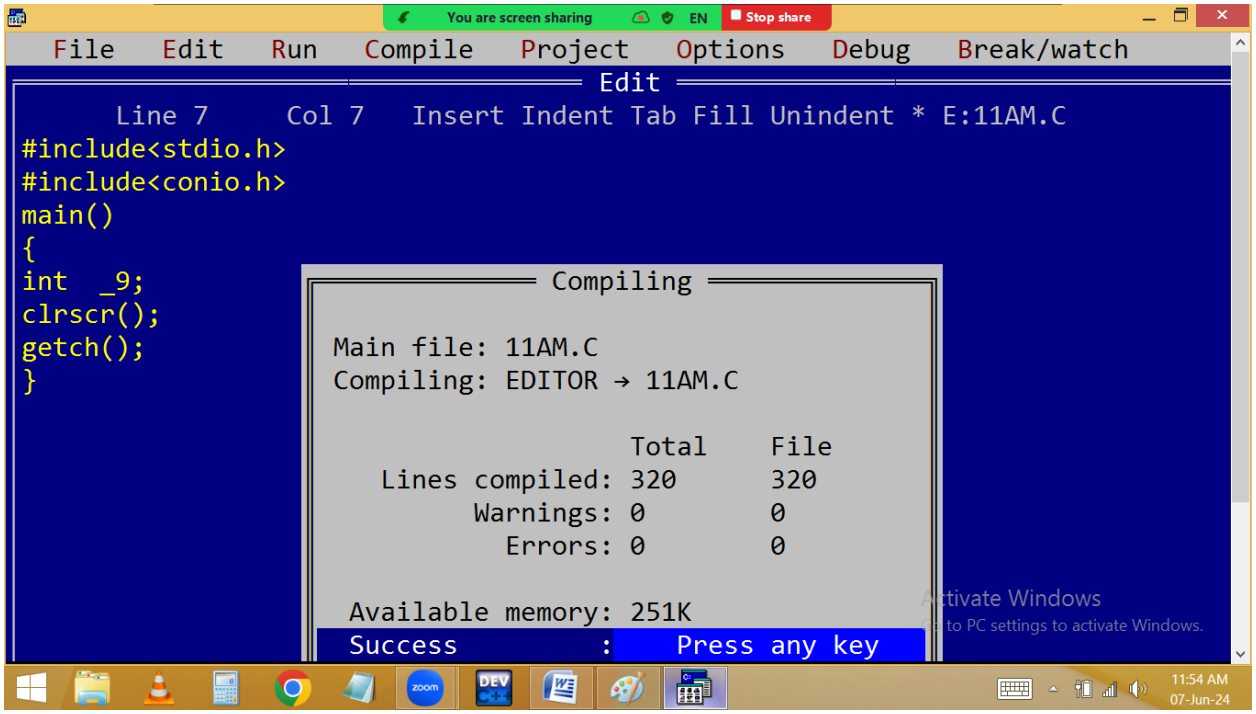
a.c, b.cpp, c.java, d.py,..

Identifier naming rules:

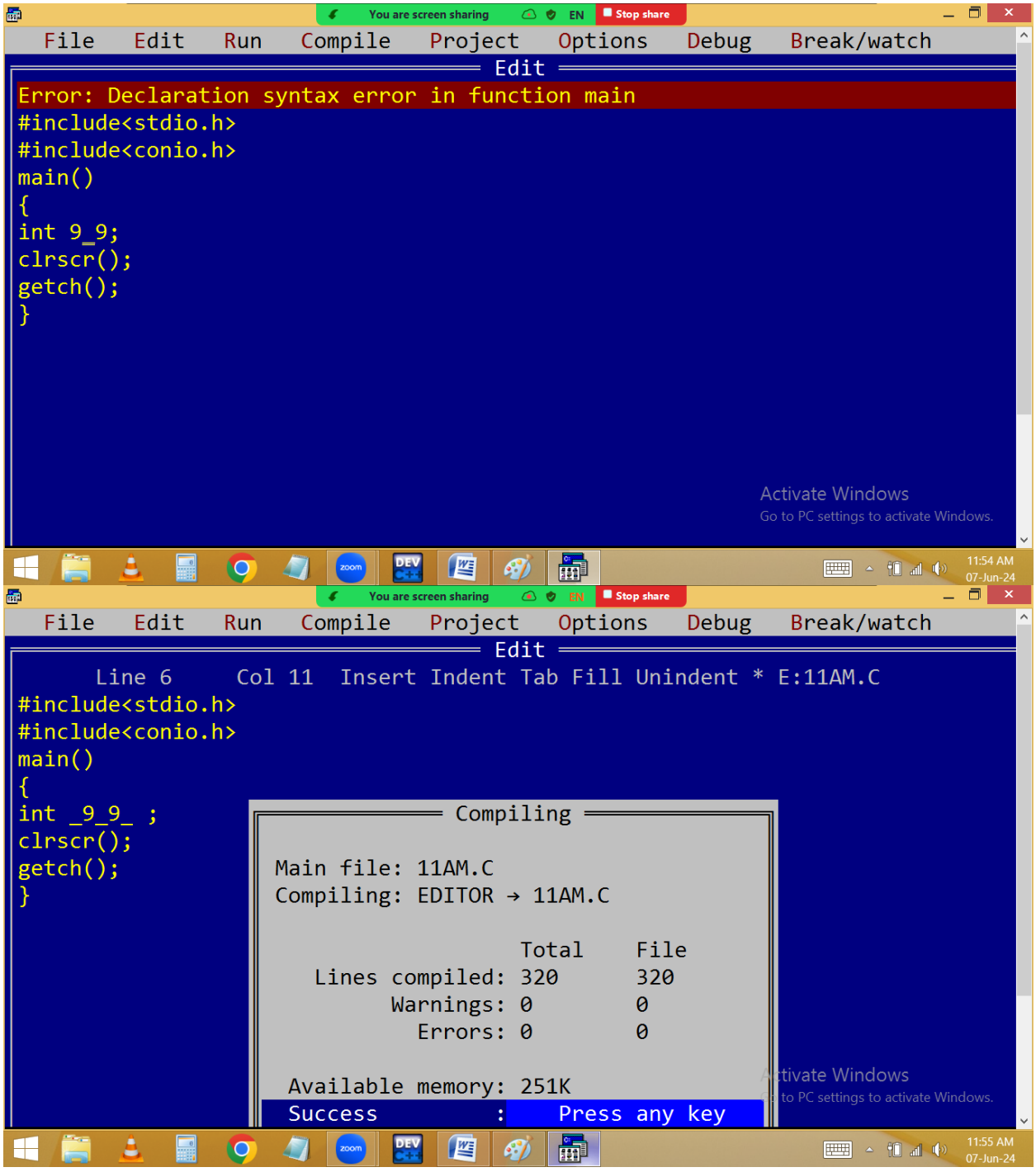
1. Name should have to start with alphabet or underscore only [_].


You are screen sharing
EN
Stop share
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 8 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
main()
{
int k;
clrscr();
getch();
}
Compiling
Main file: 11AM.C
Compiling: EDITOR → 11AM.C
Total File
Lines compiled: 320 320
Warnings: 0 0
Errors: 0 0
Available memory: 251K
Success : Press any key
Activate Windows
Go to PC settings to activate Windows.
11:53 AM
07-Jun-24

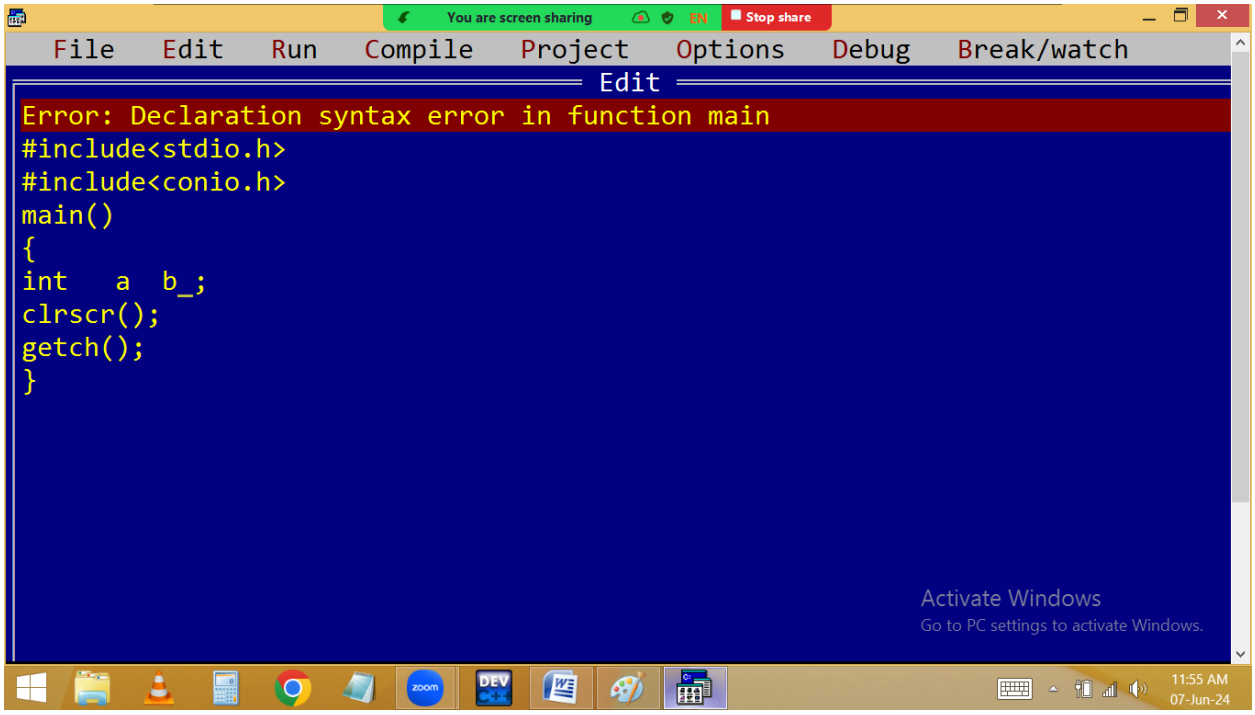

You are screen sharing
EN
Stop share
File Edit Run Compile Project Options Debug Break/watch
Edit
Error: Declaration syntax error in function main
#include<stdio.h>
#include<conio.h>
main()
{
int 9;
clrscr();
getch();
}
Activate Windows
Go to PC settings to activate Windows.
11:53 AM
07-Jun-24


You are screen sharing
EN
Stop share
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 7 Col 7 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
main()
{
int _9;
clrscr();
getch();
}
Compiling
Main file: 11AM.C
Compiling: EDITOR → 11AM.C
Total File
Lines compiled: 320 320
Warnings: 0 0
Errors: 0 0
Available memory: 251K
Success : Press any key
Activate Windows
Go to PC settings to activate Windows.
11:54 AM
07-Jun-24

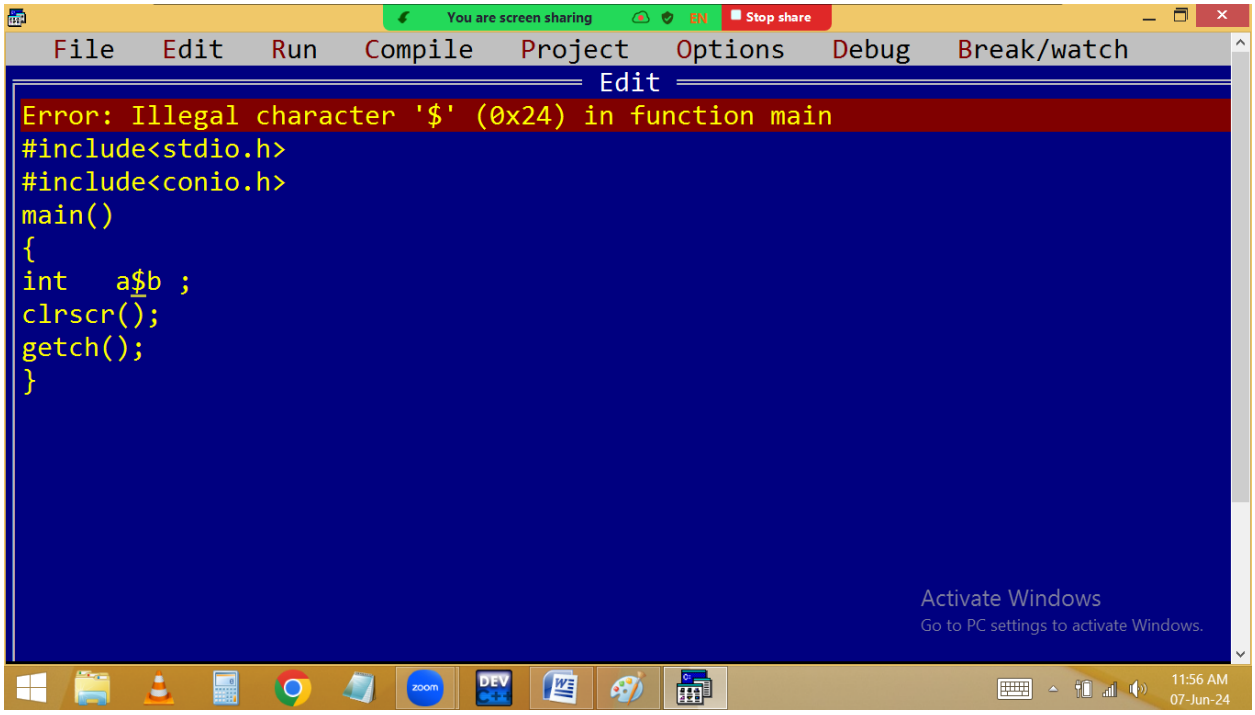
2. Numbers allowed but not at first position.



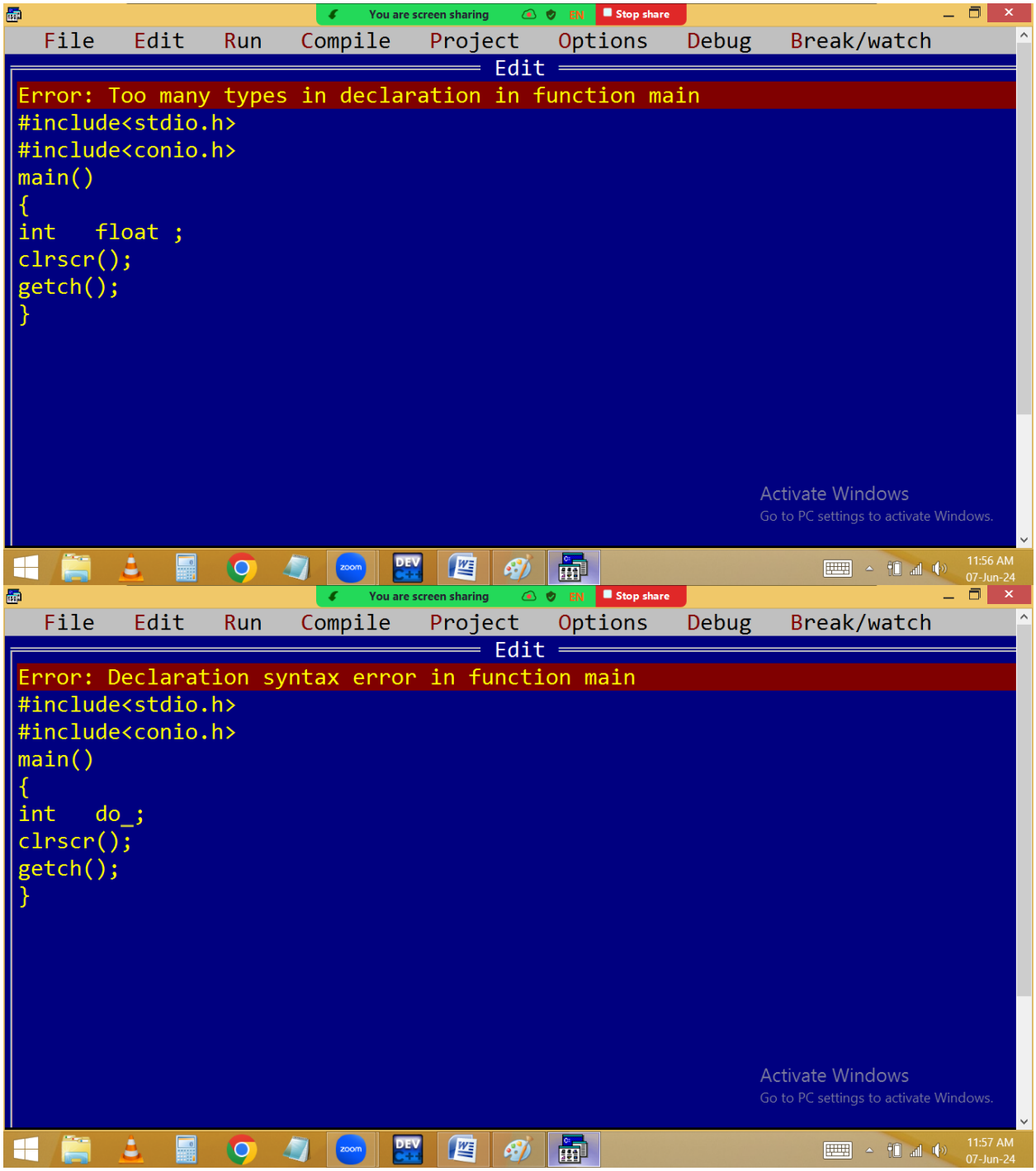
3. Spaces not allowed.



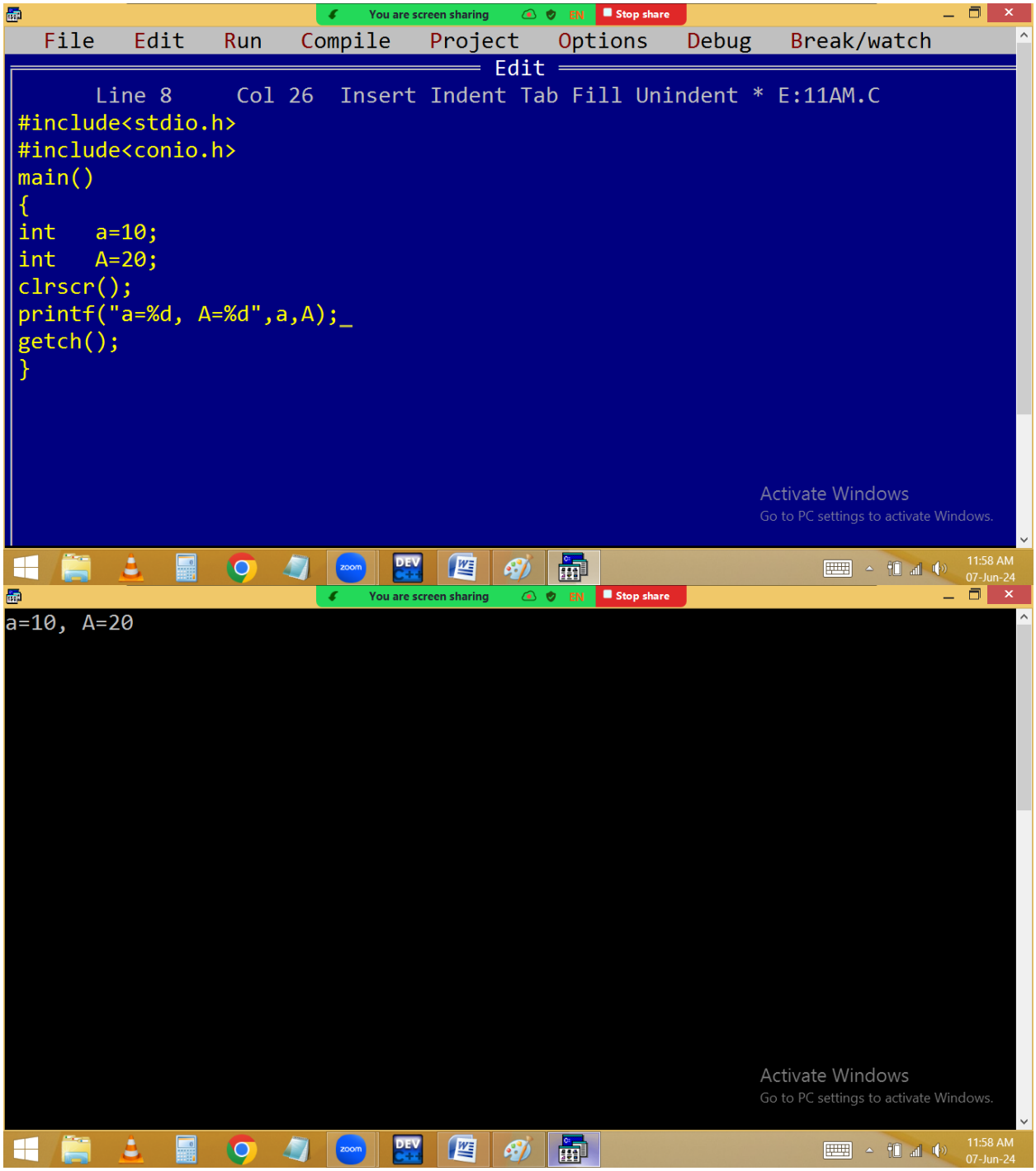
4. No special char except underscore.



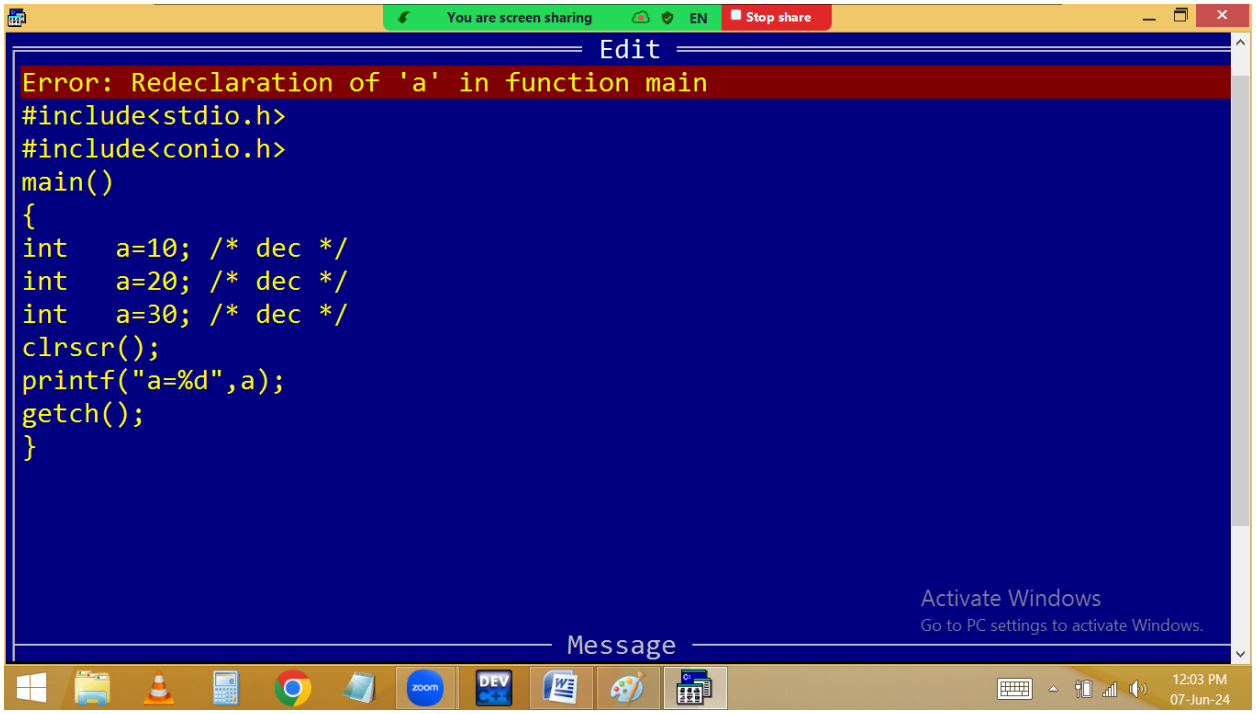
5. Keywords not allowed.

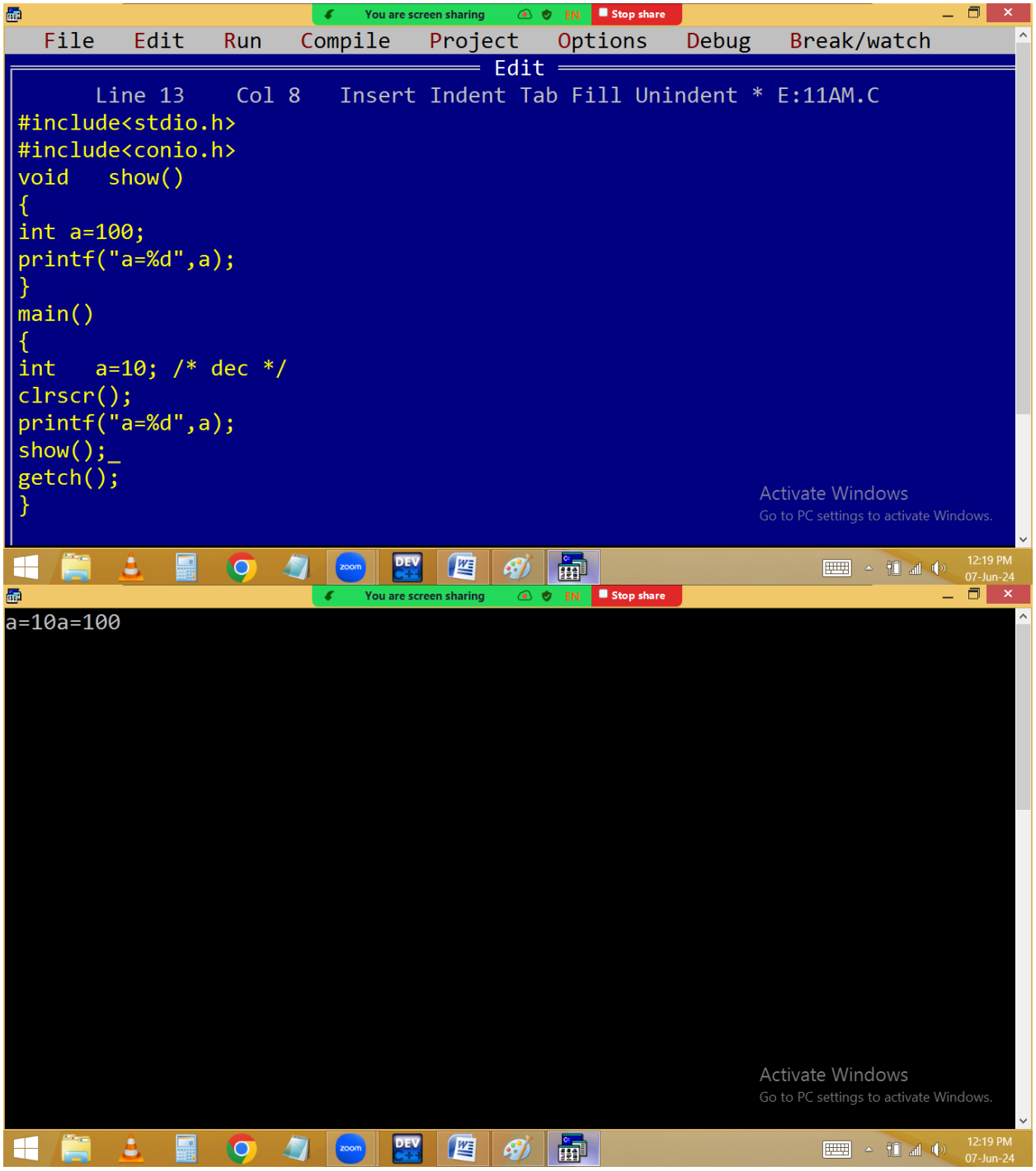


6. Identifiers are case sensitive i.e. lower and upper are different.

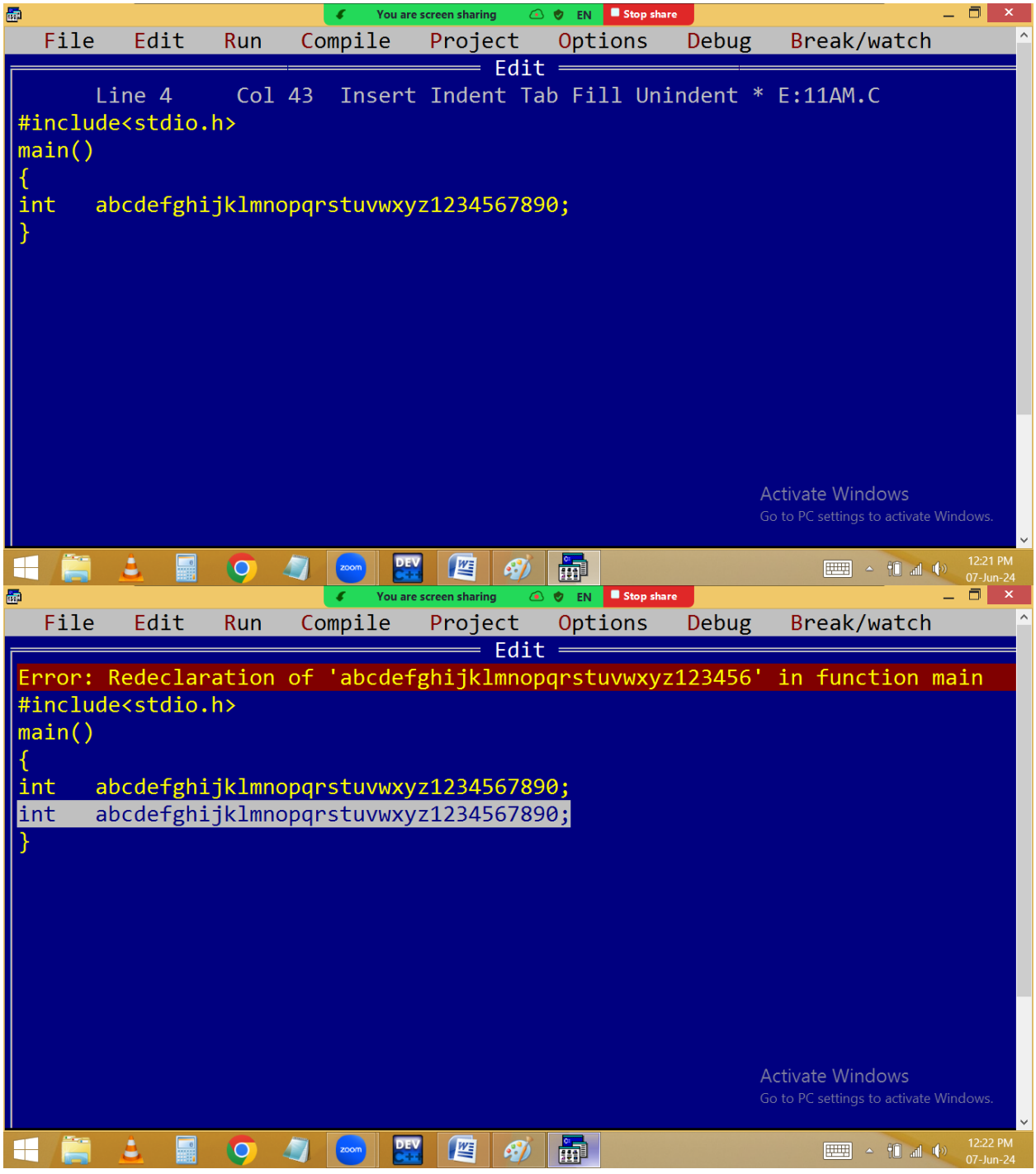


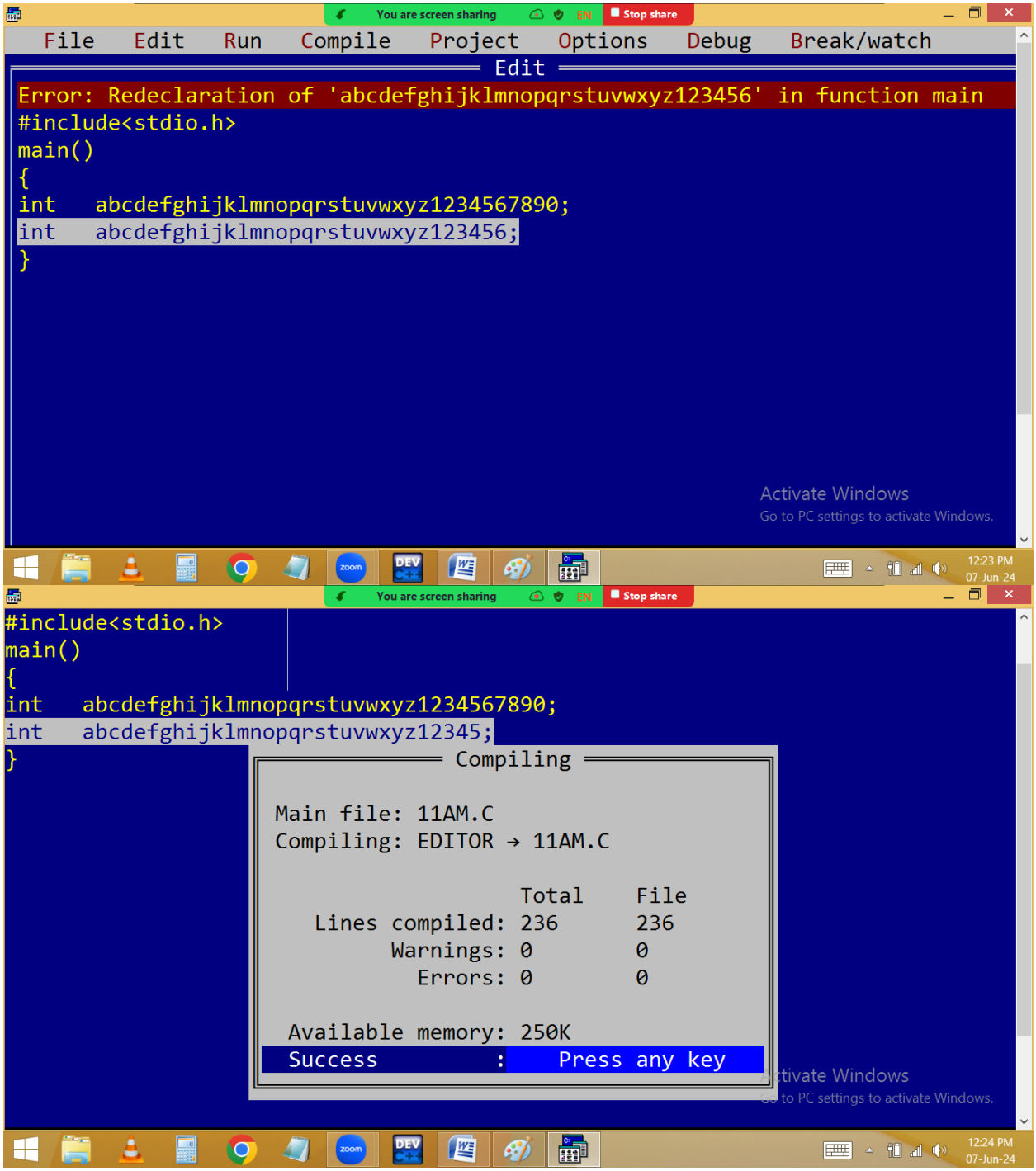
7. Duplicate names are not allowed in same function or block { }.


You are screen sharing
EN
Stop share
Edit
Error: Redeclaration of 'a' in function main
#include<stdio.h>
#include<conio.h>
main()
{
int a=10; /* dec */
int a=20; /* dec */
int a=30; /* dec */
clrscr();
printf("a=%d",a);
getch();
}
Activate Windows
Go to PC settings to activate Windows.
Message
12:03 PM
07-Jun-24



8. Name may contain up to 32 characters and excess characters ignored by the compiler.


You are screen sharing
EN
Stop share
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 4 Col 43 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
main()
{
int abcdefghijklmnopqrstuvwxyz1234567890;
}
Activate Windows
Go to PC settings to activate Windows.
12:21 PM
07-Jun-24
You are screen sharing
EN
Stop share
File Edit Run Compile Project Options Debug Break/watch
Edit
Error: Redeclaration of 'abcdefghijklmnopqrstuvwxyz123456' in function main
#include<stdio.h>
main()
{
int abcdefghijklmnopqrstuvwxyz1234567890;
int abcdefghijklmnopqrstuvwxyz1234567890;
}
Activate Windows
Go to PC settings to activate Windows.
12:22 PM
07-Jun-24



4. data types:

Data type determines the type of value we are going to store in our computer. To store anything in our computer, we should

have to allocate the memory. This memory allocation is depended on the data type we are using.

Data type determines the properties such as

1. No of bytes
2. Range
3. Type of value

In C language we are having 3 **basic** data types

1. **Int – To store non-decimal numbers**
2. **Float – To store decimal numbers**
3. **Char – To stores alphabets, numbers and special char**

Total data types are divided into 3 types.

1. **Primitive data types**
2. **Derived data types**
3. **User defined data types**

PRIMITIVE DATA TYPES:

These are the regular data types we are using in our c programs.

Data type	Bytes	Conversion Character / format specifier	Storage Range

int / signed int / short int	**2**	**%d**	**-32768 to +32767**
unsigned int	**2**	**%u**	**0 to 65535**
long int	**4**	**%ld**	**-2147483648 to 2147483647**
unsigned long int	**4**	**%lu**	**0 to 4294967295**
float	**4**	**%f**	**$3.4 * 10^{-38}$ to $3.4 * 10^{+38}$**
double	**8**	**%lf**	**$1.7 * 10^{-308}$ to $1.7 * 10^{+308}$**
long double	**10**	**%Lf**	**$3.4 * 10^{-4932}$ to $1.1*10^{+4932}$**
char	**1**	**%c**	**1 character Signed char [-128 to +127] Unsigned char [0 to 255]**
char[10] (STRING)	**10**	**%s**	**9 char + 1 null char**
void [empty data type]			**nothing**

DERIVED DATA TYPES:

They are derived from primitive data types.

1. **Array [non-primitive]**
2. **Pointer**
3. **Function**

USER DEFINED DATA TYPES:

These are the data types created by the user.

1. structure
2. union
3. enum