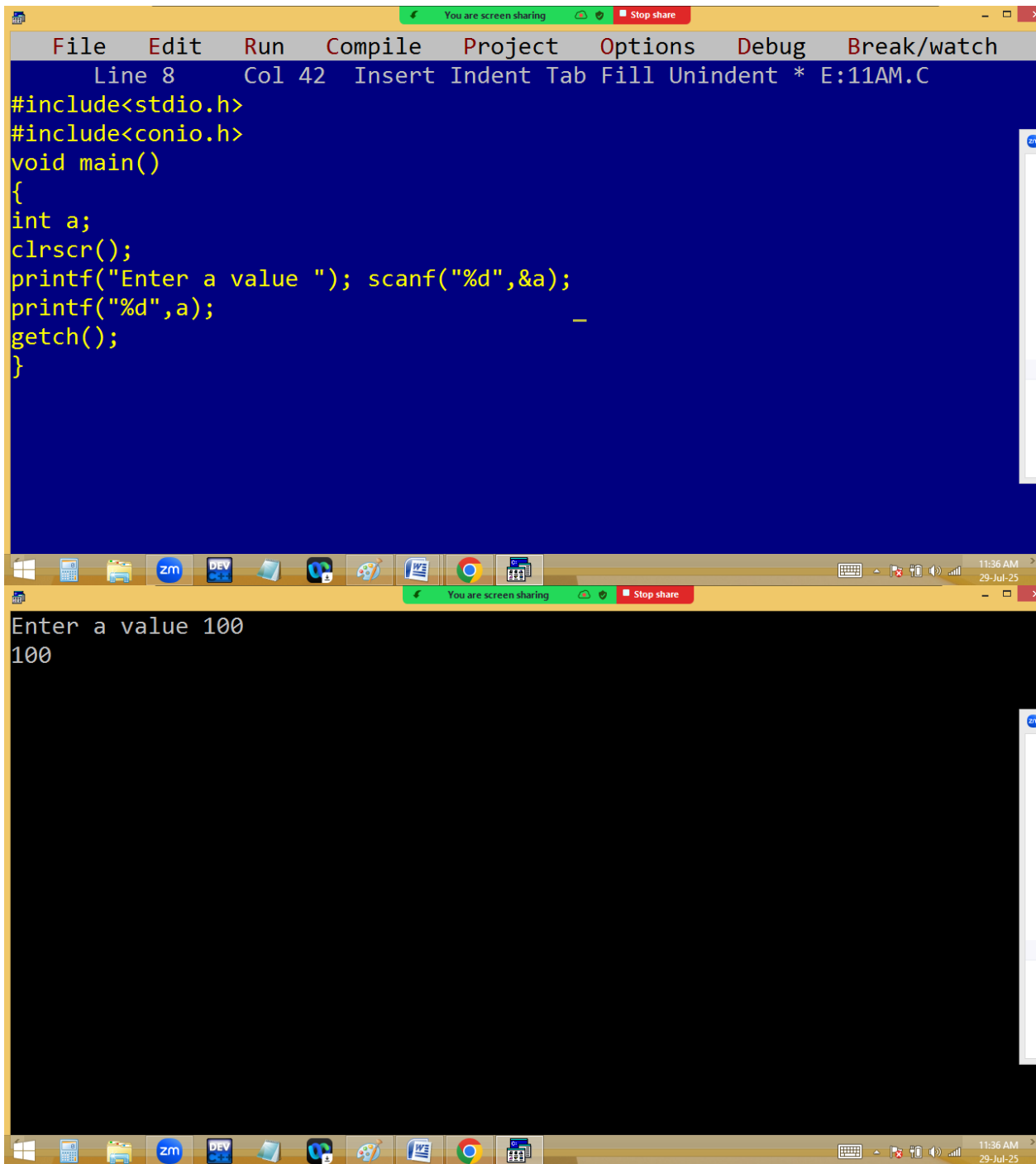


Address operators:

1. & - Address of the variable
2. * - pointer – stores the address of another variable.



The image displays two overlapping windows from a Windows IDE, likely Visual Studio, showing the execution of a C program. The top window is the source code editor, and the bottom window is the output console.

Top Window (Source Code):

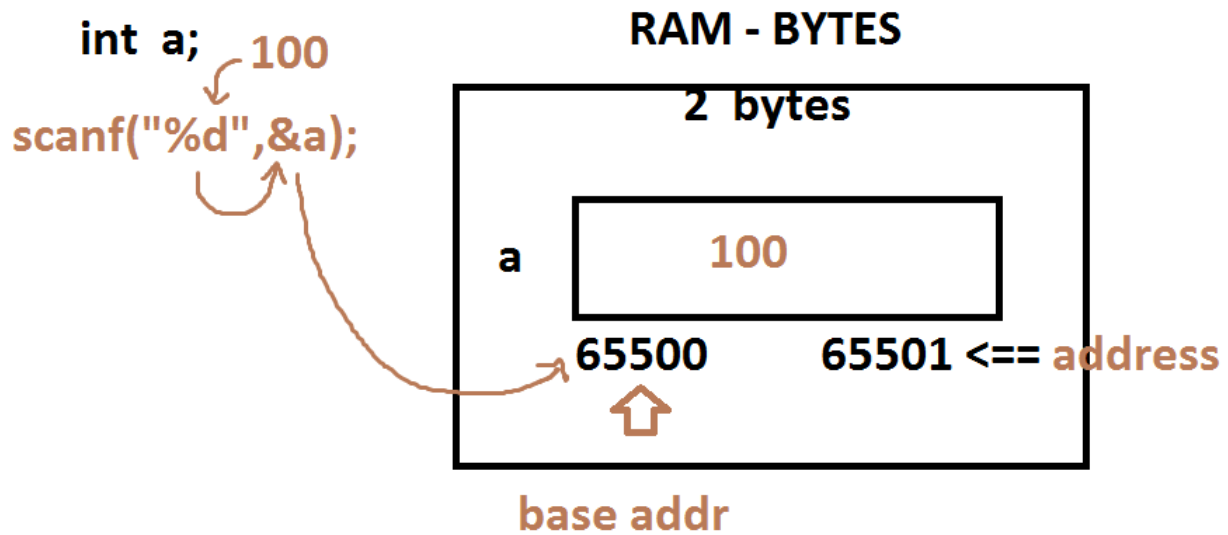
- Menu bar: File, Edit, Run, Compile, Project, Options, Debug, Break/watch
- Status bar: Line 8, Col 42, Insert, Indent, Tab, Fill, Unindent, * E:11AM.C
- Code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
clrscr();
printf("Enter a value "); scanf("%d",&a);
printf("%d",a);
getch();
}
```

Bottom Window (Output Console):

- Text: Enter a value 100
- Text: 100

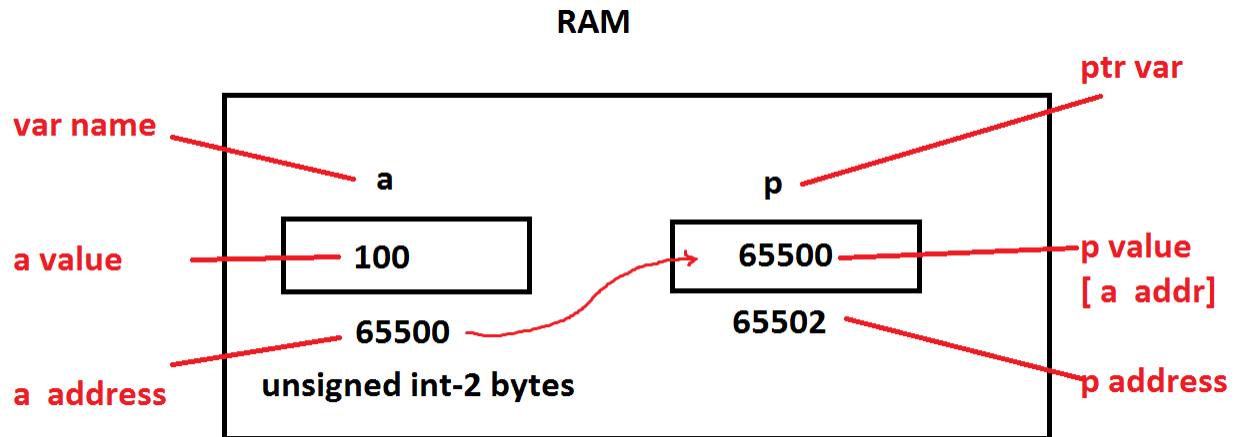
The Windows taskbar at the bottom shows the Start button, task view, and several application icons including File Explorer, Zoom, DEV, and Google Chrome. The system tray on the right indicates the time is 11:36 AM on 29-Jul-25.



*** - pointer – pointer stores the address of another variable of same type.**

```
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a ; /* normal var declaration */
int *p; /* pointer var declaration */
p = &a; /* a addr stored in pointe p */
clrscr();
printf("Enter a value "); scanf("%d",&a);
printf("a value %d\n",a);
printf("a addr %u\n",&a);
printf("p value %u\n",p);
printf("a value through p = %d",*p); /* Here * is called indirection op*/
getch();
}

Enter a value 100
a value 100
a addr 65502
p value 65502
a value through p = 100_
```



sizeof operator: It return the number of bytes taken by a variable / data type / value.

```
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 26 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=100; float b=1.2; char c='X';
clrscr();
printf("%d, %d, %d\n",sizeof(a), sizeof(b),sizeof(c));
printf("%d, %d, %d\n",sizeof(int), sizeof(float),sizeof(char));
printf("%d, %d\n",sizeof(100), sizeof(-100));
printf("%d, %d\n",sizeof(32767), sizeof(32768));
printf("%d, %d\n",sizeof(32768u), sizeof(32768U));/*suffix type casting*/
printf("%d, %d\n",sizeof((int)32768), sizeof((unsigned)32768));/*prefix*/
getch();
}
/* After 32767 the default int converted int long int i.e. 4 bytes */

2, 4, 1
2, 4, 1
2, 2
2, 4
2, 2
2, 2
```

int range ==> -32768 to +32767 <== 2 bytes



32768

unsigned int ==> 0 to 65535 <== 2 bytes

```
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 60 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d, %d\n",sizeof((int)100000), sizeof((unsigned)100000));/*prefix*
printf("%d, %d\n",sizeof(100000u), sizeof(100000U));/*suffix*/
printf("%d, %d\n",sizeof(10l), sizeof(10L));
printf("%d, %d\n",sizeof((int)10.4), sizeof((char)10.4));
printf("%d, %d\n",sizeof((float)10), sizeof((long double)10));
getch();
}
```

```
2, 2
4, 4
4, 4
2, 1
4, 10
```