

Signed Integer and Unsigned Integer.

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int a;
    unsigned int b=4;
    unsigned short int c;
    unsigned long int d;
    printf("%d", b);
    return 0;
}
```

Diagram illustrating memory layout and ranges:

- Variable **a** (int) occupies 2 bytes, with address 102.
- Variable **b** (unsigned int) occupies 2 bytes, with address 104.

16-bit Machine ranges:

- short int: 0 to 32,767
- unsigned short int: 0 to 65,535
- long int: -2,147,483,648 to 2,147,483,647
- unsigned long int: 0 to 4,294,967,295

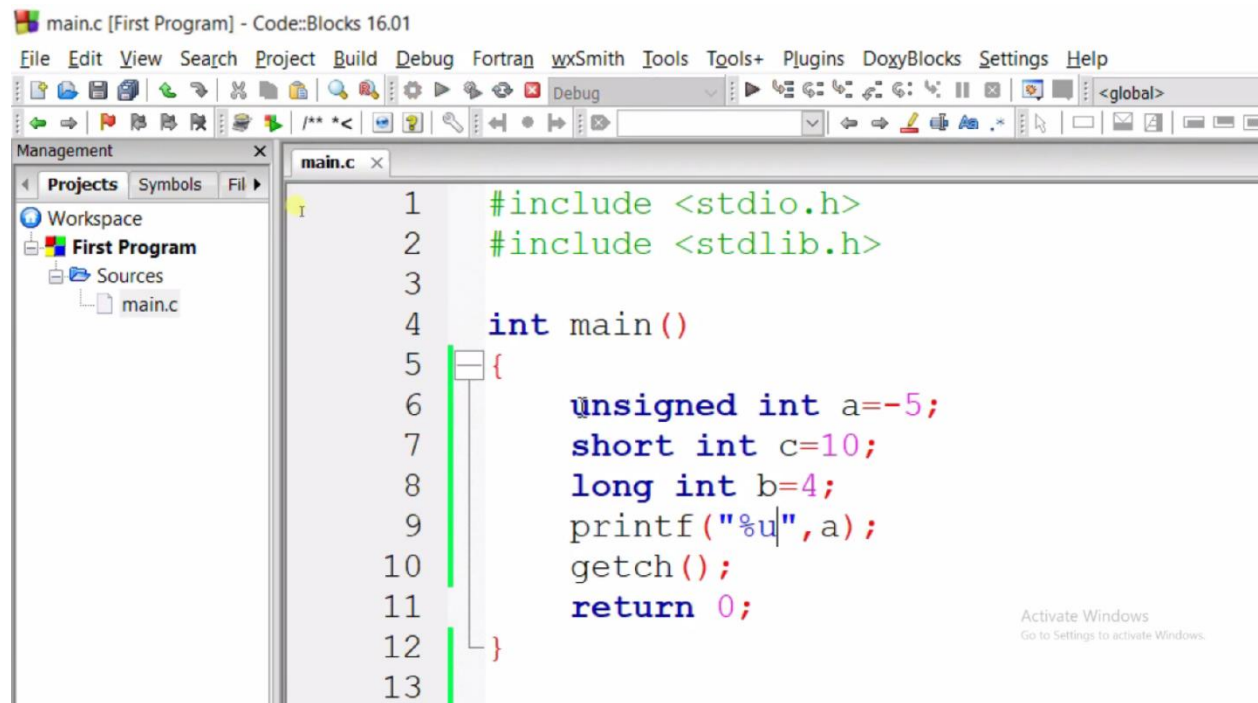
Program] - Code::Blocks 16.01

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main.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     int a=-5;
7     short int c=10;
8     long int b=4;
9     printf("%d", a);
10    getch();
11    return 0;
12 }
13
```

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```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      unsigned int a=-5;
7      short int c=10;
8      long int b=4;
9      printf("%u", a);
10     getch();
11     return 0;
12 }
13
```

Management

Projects Symbols File

Workspace

First Program

Sources

main.c

main.c x

Debug

<global>

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gives a garbage value