

### Basic Code Template

```
#include <bits/stdc++.h>
using namespace std;
// Main Function
int main() {
    //Write code to run here
    return 0;
}
```

### Comments

```
// Line comments
// Put comment here
/*
Block Comments
Put entire sections of text
in here
*/
```

### Input Output

Type	Code
Input	cin >> Var1 >> Var2 >> .....

Inputs of variables can be separated by spaces, tabs or newlines. eg. "1 2 3"

Output	cout << Data1 << Data2 <<...;
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Remember to put spaces and endl to output data in the appropriate format

Output newline	cout << endl;
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### Data types

#### Integers

short	-2 <sup>15</sup> to 2 <sup>15</sup> -1 (about 32 000)
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int	-2 <sup>31</sup> to 2 <sup>31</sup> -1 (about 2.14 × 10 <sup>9</sup> )
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long long	-2 <sup>63</sup> to 2 <sup>63</sup> -1 (about 9 × 10 <sup>18</sup> )
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unsigned short	0 to 2 <sup>16</sup> -1 (about 65 000)
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unsigned int	0 to 2 <sup>32</sup> -1 (about 4.29 × 10 <sup>9</sup> )
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unsigned long long	0 to 2 <sup>64</sup> -1 (about 18 × 10 <sup>18</sup> )
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#### Floating Point

### Data types (cont)

float	floating point
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double	more precise floating point
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long double	even more precise
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#### string

used to store text

### Declaring variables

```
// One item
data_type variable_name; //initial
value is garbage
variable_name = value;
// OR
data_type variable_name =
initial_value;
// Array
data_type array[length]; //initial
value is garbage
array[index] = value;
// OR
data_type array[length] = {value1,
value2, ...};
```

