```
#include <iostream>
using namespace std;

int main() {
    char c;
    c = 'A';
    cout << c << endl;
    return 0;
}
```

```
#include <iostream>
using namespace std;

int main() {
    int val;
    cout << "Enter value: ";
    //cin >> val;
    val = 56;
    cout << "Val was : " << val;

    return 0;
}
```

message

endl

Enter value: 12

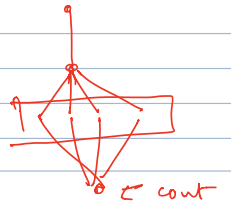
// no message shown

- Data storage ✓
- Decisions ✓
- Iterations

```
void if_test() {
    int age = 16;
    if ( age >= 18 ) {
        cout << "You can vote" << endl;
    } else {
        cout << "You are safe" ;
    }
}
```

condition ① true

```
char grade = 'C' ;
float points = 0.0 ;
if ( grade == 'A' )
    points = 4.0;
else if ( grade == 'B' )
    points = 3.0;
else if ( grade == 'C' )
    points = 2.0;
else
    points = 0.0;
cout << points ;
```



if (①)
else

if (②)

if (③)

4.0

(foobuzz)

if (highest priority)

else if ( )

else if ( )

else if ( )

else (lowest priority)

if ( ) points = 4

if ( )

if ( )

if ( ) points = 0 highest

if-else-if ladder

if (from_pakistan)
    d = 0.5 ;

if (from_rural_area)
    d = 0.25

points

char grade = 'B';
float points = 0.0;

grade B

Points 3.0

switch (grade) {   (grade: variable)

case 'A' : points = 4.0 ;
           break;

case 'B' : points = 3.0 ;
           break;

case 'C' : points = 2.0 ;
           break;

default : points = 0.0 ;

}

cout << points ; //4.0

— Iterations (loops)

```
int i = 0;
while ( i < 5 ) {
    i += 1;
    cout << i << endl;
}
```

initialization; stopping condition; step

i: 1

1	0
2	1
3	2
4	3
5	4

```
cout << i ; // 5
```

```
void if_test() {
    //int i;
    for ( int i=0 ; i<5 ; i++ ) {
        cout << i << endl;
    }
    cout << i ; // Error
}
```

local variable

1* init; 2 5 8 stopping cond.; 4 7 step; 3 6 body of the for loop.

i += 2

declaration

scope of i