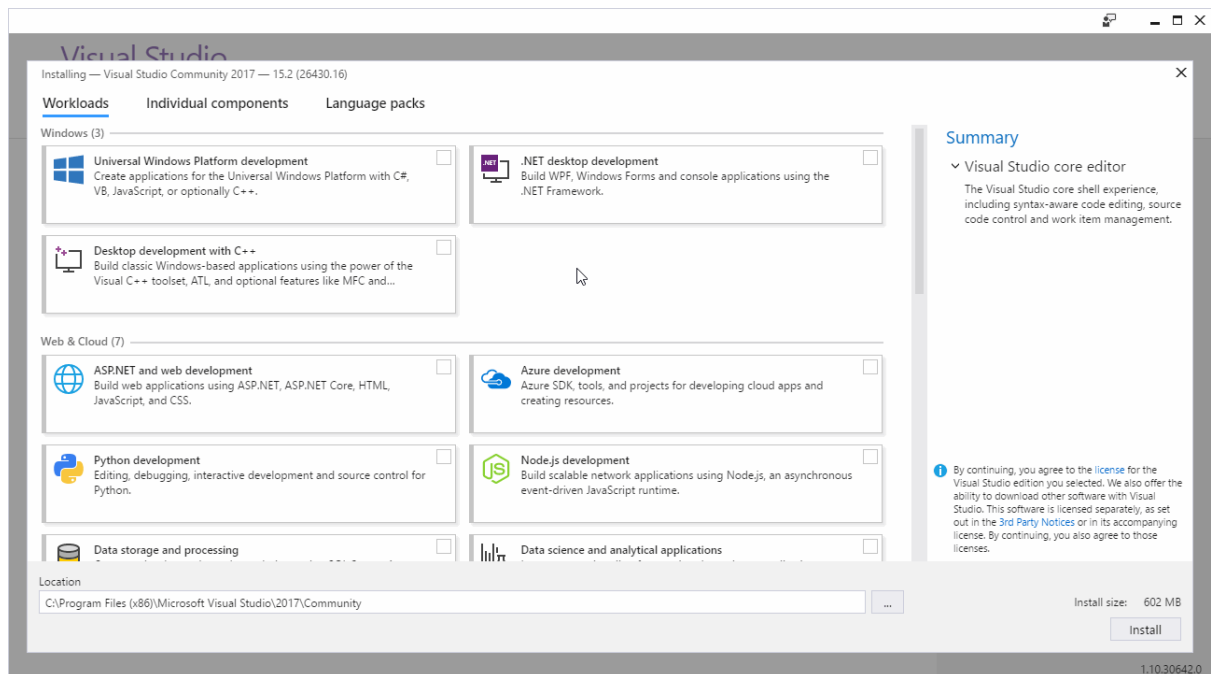


CPP Notes – Day 01

Visual Studio Setup for C++ – Key Points

1. Install Visual Studio with C++ Workload: Download from visual Microsoft website and select “Desktop development with C++” during installation.
2. Create a new C++ project: Go to File > New > Project. Choose Console App (C++) and set a name and location.
3. Write and run your code: Add your C++ code in main.cpp. Build and run your program.



Operators

Operators in C++ are symbols that perform operations on variables and values. They are fundamental to any programming language and can be classified into several types: Arithmetic, Relational, Logical, Assignment.

1. Arithmetic Operators: Used to perform basic mathematical operations.

```

1  #include <iostream>
2  using namespace std;
3
4  ✓ int main(){
5      int a = 10, b = 20;
6      cout<<"Sum of two numbers:"<<a+b<<endl; //Addition
7      cout<<"Difference of two numbers:"<<b-a<<endl; //Subtraction
8      cout<<"Multiplying two numbers:"<<a*b<<endl; //Multiplication
9      cout<<"Dividing two numbers:"<<b/a<<endl; //Division
10     cout<<"Modulus of two numbers:"<<a%b<<endl; //Modulus
11     cout<<"Increment of a:"<<++a<<endl; //Increment
12     cout<<"Decrement of b:"<<--b<<endl; //Decrement
13     return 0;
14 }

```

2. Assignment Operator: Used to assign values to variables.

```

1  #include <iostream>
2  using namespace std;
3
4  ✓ int main() {
5      int x = 5;
6
7      x += 3; // x + 3
8      cout << "After x += 3: " << x << endl;
9
10     x -= 2; // x - 2
11     cout << "After x -= 2: " << x << endl;
12
13     x *= 4; // x * 4
14     cout << "After x *= 4: " << x << endl;
15
16     x /= 3; // x / 3
17     cout << "After x /= 3: " << x << endl;
18
19     x %= 5; // x % 5
20     cout << "After x %= 5: " << x << endl;
21     return 0;
22 }

```

3. Logical Operator: Used to combine multiple conditions.

```

1  #include <iostream>
2  using namespace std;
3
4  ✓ int main() {
5      bool x = true;
6      bool y = false;
7      cout << "x && y (AND): " << (x && y) << endl; // false = 0
8      cout << "x || y (OR): " << (x || y) << endl; // true = 1
9      cout << "!x (NOT x): " << (!x) << endl; // false = 0
10     cout << "!y (NOT y): " << (!y) << endl; // true = 1
11     return 0;
12 }

```

4. Comparison Operator: Used to compare values.

```

1  #include <iostream>
2  using namespace std;
3
4  ✓ int main() {
5      int a = 10, b = 20;
6      cout << "a == b: " << (a == b) << endl; // false = 0
7      cout << "a != b: " << (a != b) << endl; // true = 1
8      cout << "a > b: " << (a > b) << endl; // false = 0
9      cout << "a < b: " << (a < b) << endl; // true = 1
10     cout << "a >= b: " << (a >= b) << endl; // false = 0
11     cout << "a <= b: " << (a <= b) << endl; // true = 1
12     return 0;
13 }

```