Assignment - 35 A Job Ready Bootcamp in C++, DSA and IOT

Templates

1. Write a C++ program to demonstrate the addition of multiple types of data using

generic functions or templates.

#include <iostream>

using namespace std;

template <typename X, typename Y>

Y add(X x, Y y)

{

return x + y;

}

int main()

{

cout << add<int, float>(5, 3.2);

return 0;

}

2. Write a C++ Program to find Largest among two numbers using function template.

#include <iostream>

using namespace std;

template <typename X, typename Y>

Y largestNo(X x, Y y)

{

return x > y ? x : y;

}

int main()

{

cout<<largestNo(5,3.2);

return 0;

}

3. Write a C++ program to find the largest of three elements using a template.

#include <iostream>

using namespace std;

template <class X, class Y, class Z>

Y largestNo(X x, Y y, Z z)

{

return x > y ? x > z ? x : z : y;

}

int main()

{

cout << largestNo(53, 443.2,9);

return 0;

}

4. Write a C++ Program to Swap data using function template.

#include <iostream>

using namespace std;

template <typename X, typename Y>

void swap(X &x, Y &y)

{

Y temp = x;

x = y;

y = x;

}