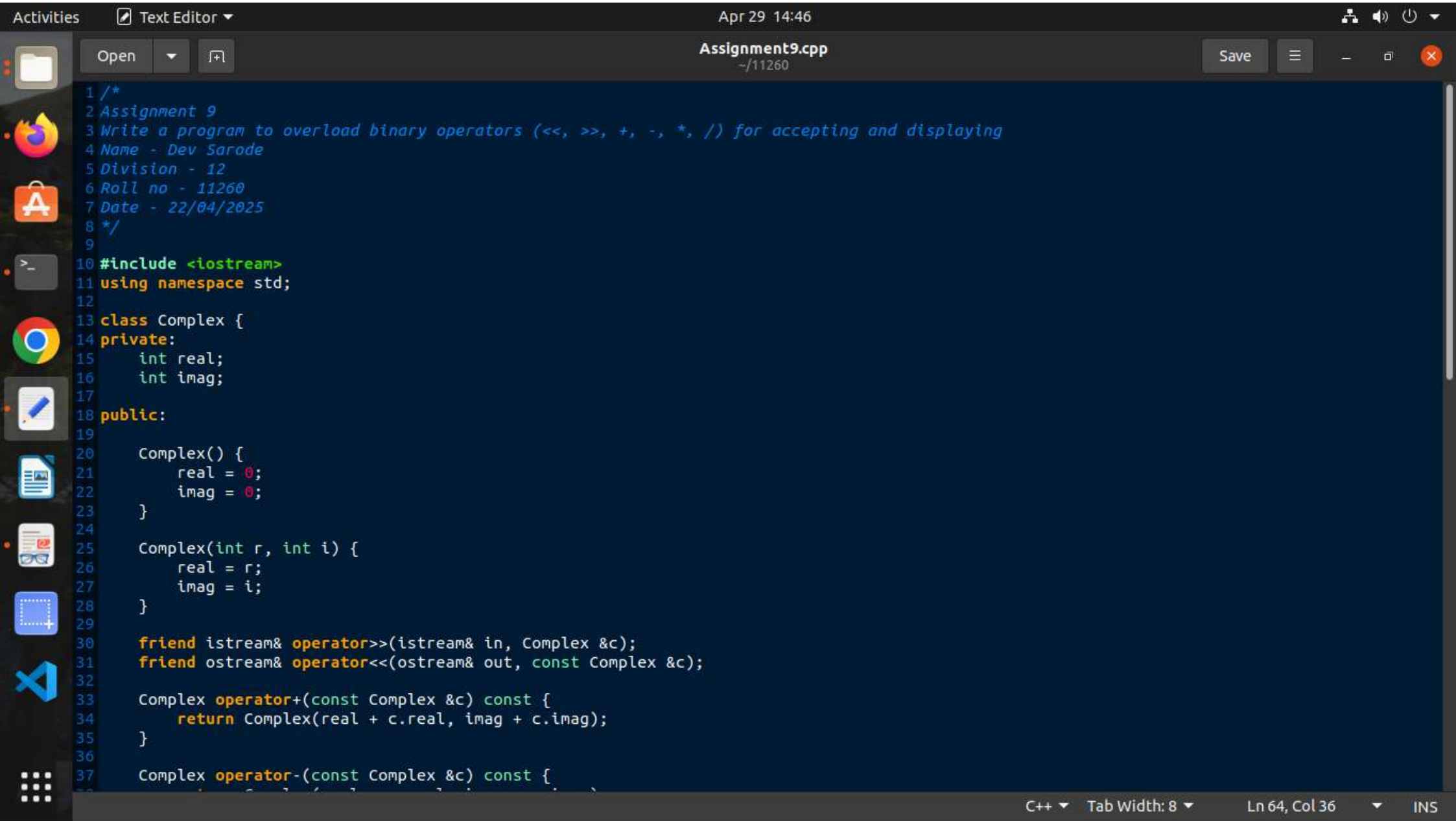
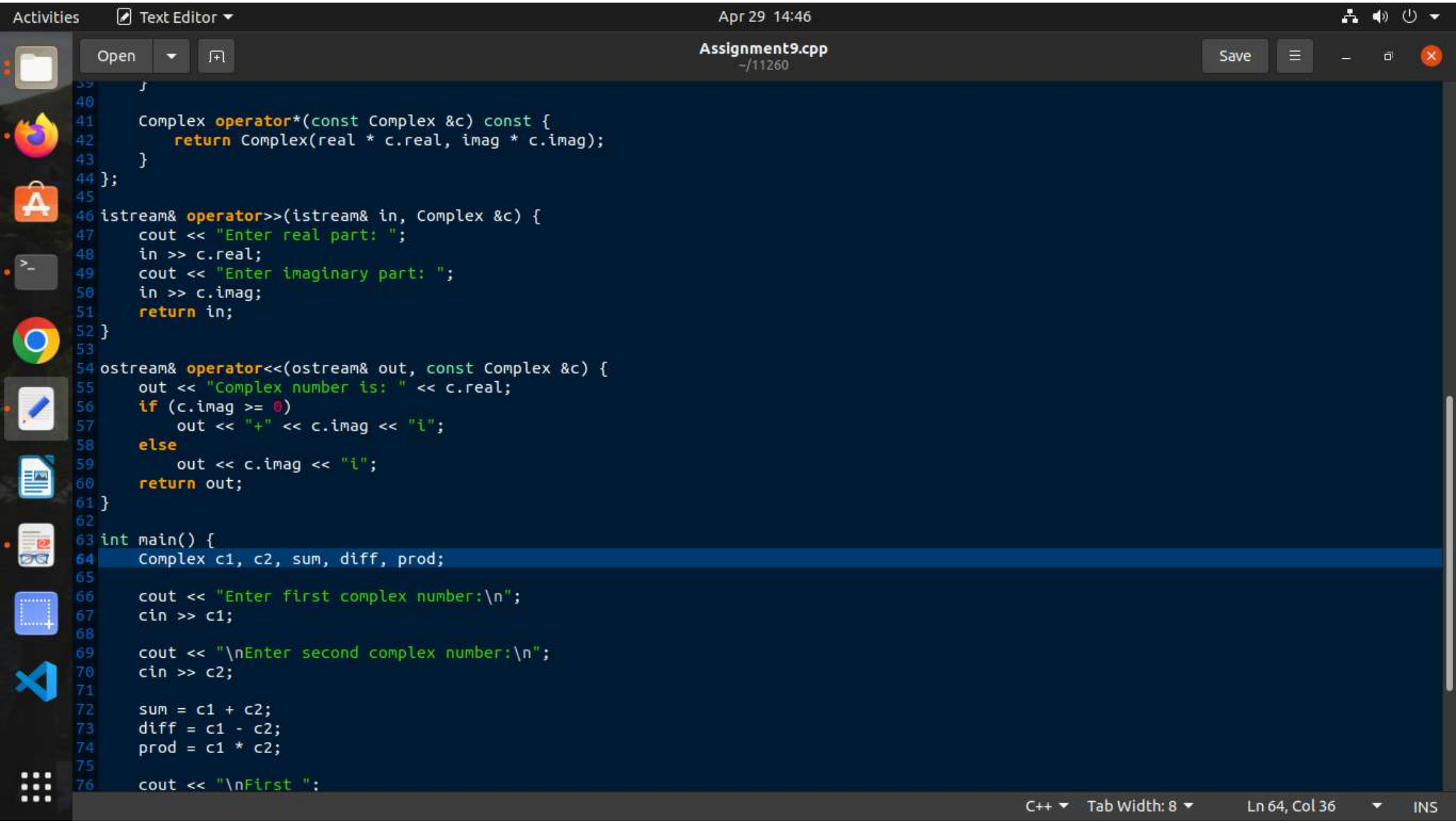
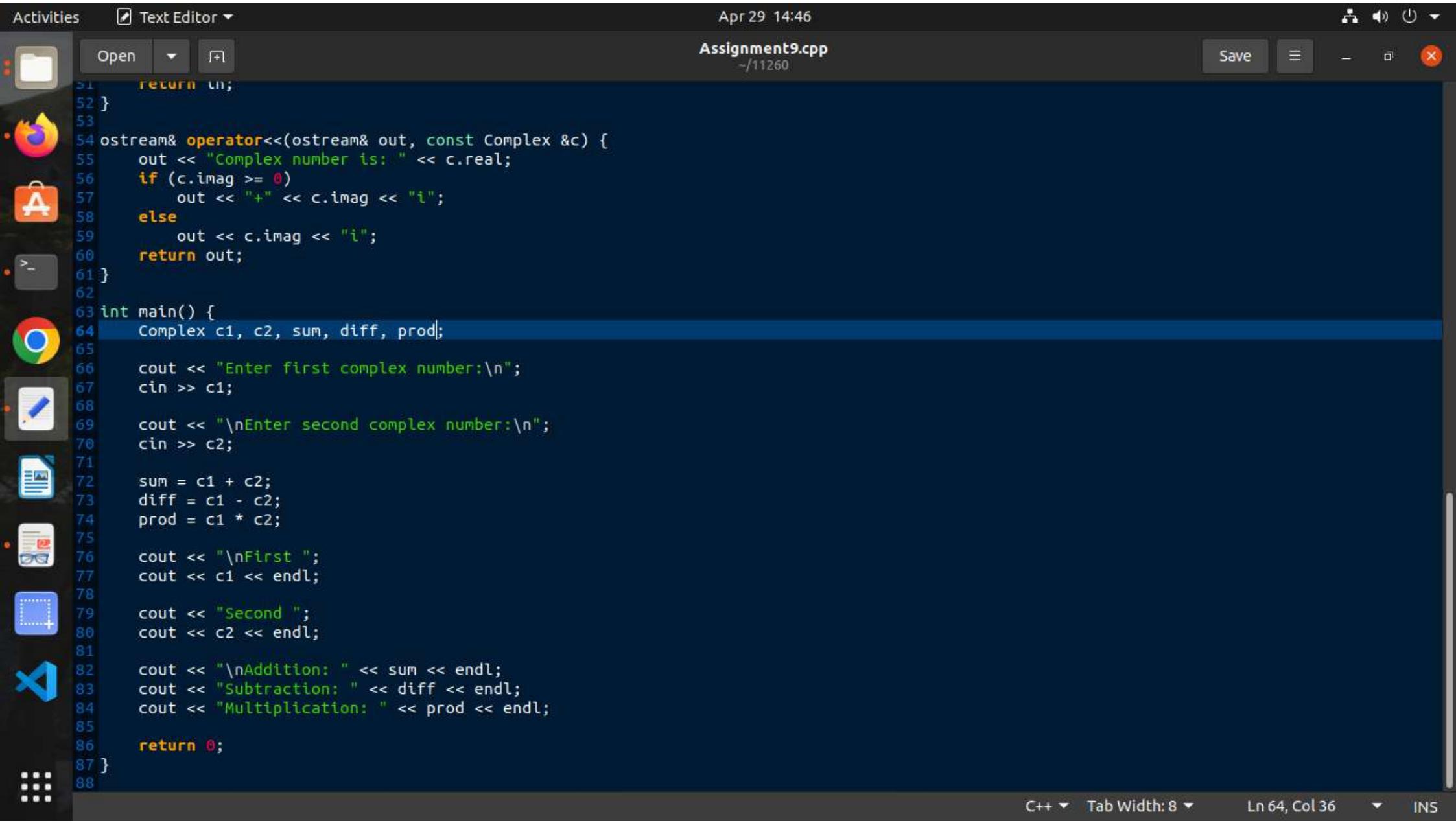
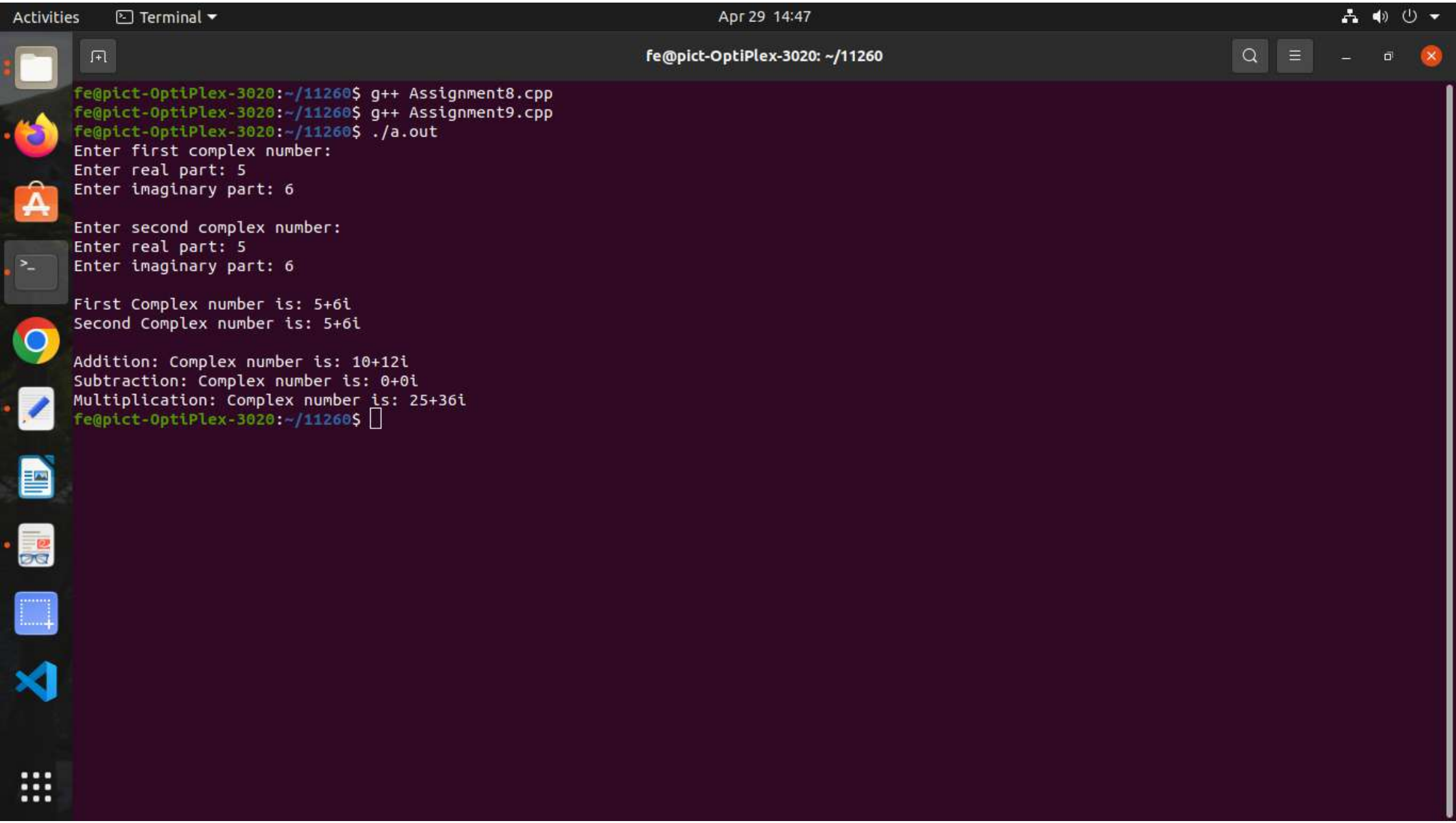

Activities
Text Editor
Apr 29 14:46
Open
Assignment9.cpp
~/11260
Save
/*
Assignment 9
Write a program to overload binary operators (<<, >>, +, -, *, /) for accepting and displaying
Name - Dev Sarode
Division - 12
Roll no - 11260
Date - 22/04/2025
*/
#include <iostream>
using namespace std;
class Complex {
private:
int real;
int imag;
public:
Complex() {
real = 0;
imag = 0;
}
Complex(int r, int i) {
real = r;
imag = i;
}
friend istream& operator>>(istream& in, Complex &c);
friend ostream& operator<<(ostream& out, const Complex &c);
Complex operator+(const Complex &c) const {
return Complex(real + c.real, imag + c.imag);
}
Complex operator-(const Complex &c) const {
C++
Tab Width: 8
Ln 64, Col 36
INS


Activities
Text Editor
Apr 29 14:46
Open
Assignment9.cpp
~/11260
Save
}
Complex operator*(const Complex &c) const {
return Complex(real * c.real, imag * c.imag);
}
};
istream& operator>>(istream& in, Complex &c) {
cout << "Enter real part: ";
in >> c.real;
cout << "Enter imaginary part: ";
in >> c.imag;
return in;
}
ostream& operator<<(ostream& out, const Complex &c) {
out << "Complex number is: " << c.real;
if (c.imag >= 0)
out << "+" << c.imag << "i";
else
out << c.imag << "i";
return out;
}
int main() {
Complex c1, c2, sum, diff, prod;
cout << "Enter first complex number:\n";
cin >> c1;
cout << "\nEnter second complex number:\n";
cin >> c2;
sum = c1 + c2;
diff = c1 - c2;
prod = c1 * c2;
cout << "\nFirst ";
C++
Tab Width: 8
Ln 64, Col 36
INS


Activities
Text Editor
Apr 29 14:46
Open
Assignment9.cpp
~/11260
Save
return in;
}
ostream& operator<<(ostream& out, const Complex &c) {
out << "Complex number is: " << c.real;
if (c.imag >= 0)
out << "+" << c.imag << "i";
else
out << c.imag << "i";
return out;
}
int main() {
Complex c1, c2, sum, diff, prod;
cout << "Enter first complex number:\n";
cin >> c1;
cout << "\nEnter second complex number:\n";
cin >> c2;
sum = c1 + c2;
diff = c1 - c2;
prod = c1 * c2;
cout << "\nFirst ";
cout << c1 << endl;
cout << "Second ";
cout << c2 << endl;
cout << "\nAddition: " << sum << endl;
cout << "Subtraction: " << diff << endl;
cout << "Multiplication: " << prod << endl;
return 0;
}
C++
Tab Width: 8
Ln 64, Col 36
INS


Activities
Terminal
Apr 29 14:47
fe@pict-OptiPlex-3020: ~/11260
fe@pict-OptiPlex-3020:~/11260$ g++ Assignment8.cpp
fe@pict-OptiPlex-3020:~/11260$ g++ Assignment9.cpp
fe@pict-OptiPlex-3020:~/11260$ ./a.out
Enter first complex number:
Enter real part: 5
Enter imaginary part: 6
Enter second complex number:
Enter real part: 5
Enter imaginary part: 6
First Complex number is: 5+6i
Second Complex number is: 5+6i
Addition: Complex number is: 10+12i
Subtraction: Complex number is: 0+0i
Multiplication: Complex number is: 25+36i
fe@pict-OptiPlex-3020:~/11260$