Compilation

```
jamess-imac:program AcousticTime$ g++ -c FileCheck.cpp
jamess-imac:program AcousticTime$ g++ -c Input.cpp
jamess-imac:program AcousticTime$ g++ -c LinearRegression.cpp
jamess-imac:program AcousticTime$ g++ -c StringToFloat.cpp
jamess-imac:program AcousticTime$ g++ -o program4A program4A.cpp FileCheck.o
Input.o LinearRegression.o StringToFloat.o
jamess-imac:program AcousticTime$
```

Test 1

```
jamess-imac:program AcousticTime$ ./program4A
What would you like to do?
Enter 1 to read from file.
Enter 2 to write to file.
Enter 3 to modify a file.
Enter 4 to calculate linear regression.
Enter 0 to quit.
Choice: 4
Enter the x-axis values filename: xvalues

Enter the y-axis values filename: yvalues

B0 = -22.5524
B1 = 1.72793
```

Test 2

```
jamess-imac:program AcousticTime$ ./program4A
What would you like to do?
Enter 1 to read from file.
Enter 2 to write to file.
Enter 3 to modify a file.
Enter 4 to calculate linear regression.
Enter 0 to quit.
Choice: 4
Enter the x-axis values filename: xvaluesb

Enter the y-axis values filename: yvalues

B0 = -23.9238
B1 = 1.43097
```

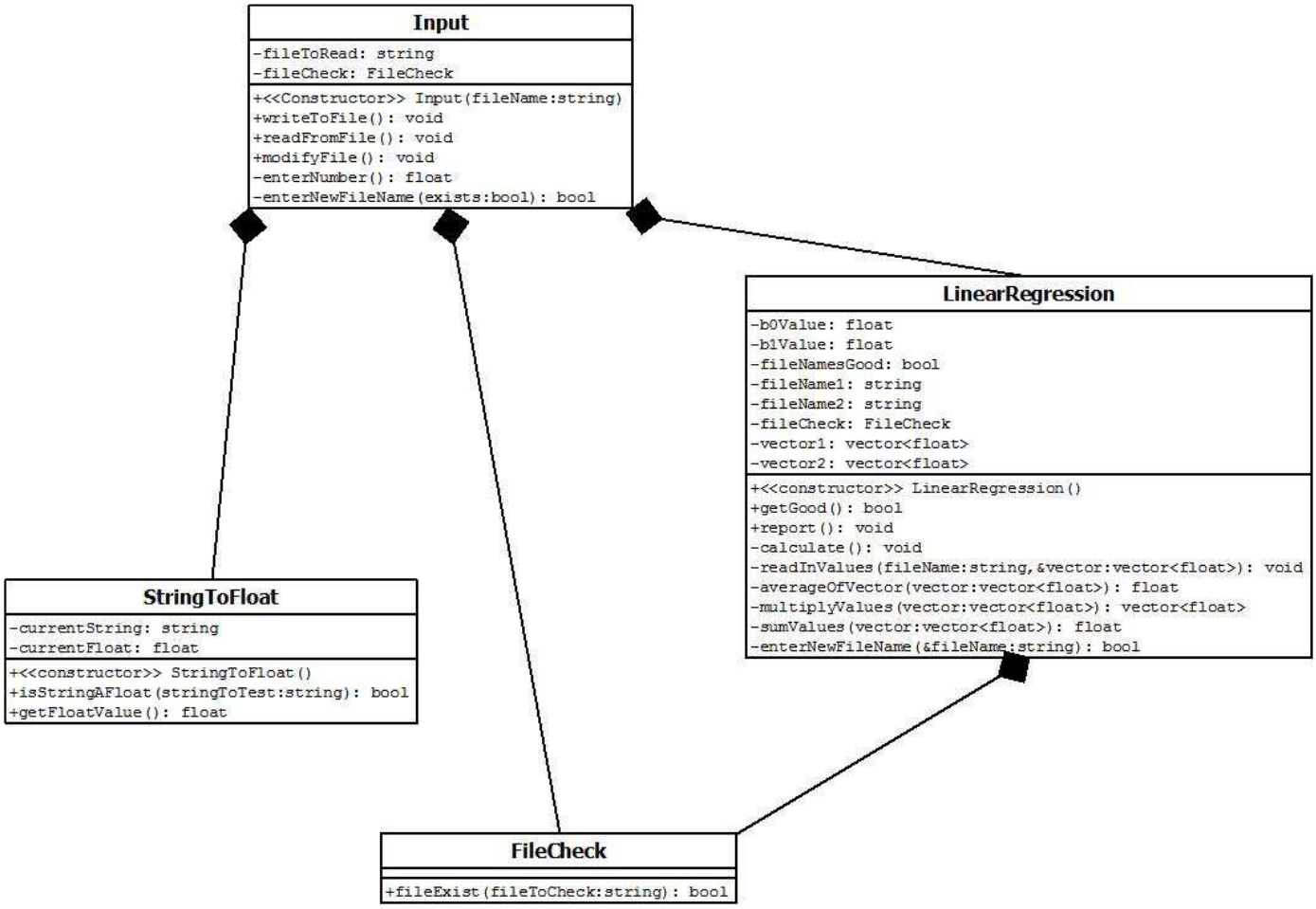
Test 3

```
jamess-imac:program AcousticTime$ ./program4A
What would you like to do?
Enter 1 to read from file.
Enter 2 to write to file.
Enter 3 to modify a file.
Enter 4 to calculate linear regression.
Enter 0 to quit.
Choice: 4
Enter the x-axis values filename: xe

Enter the y-axis values filename: yn

B0 = 155.929
B1 = -0.482143
```

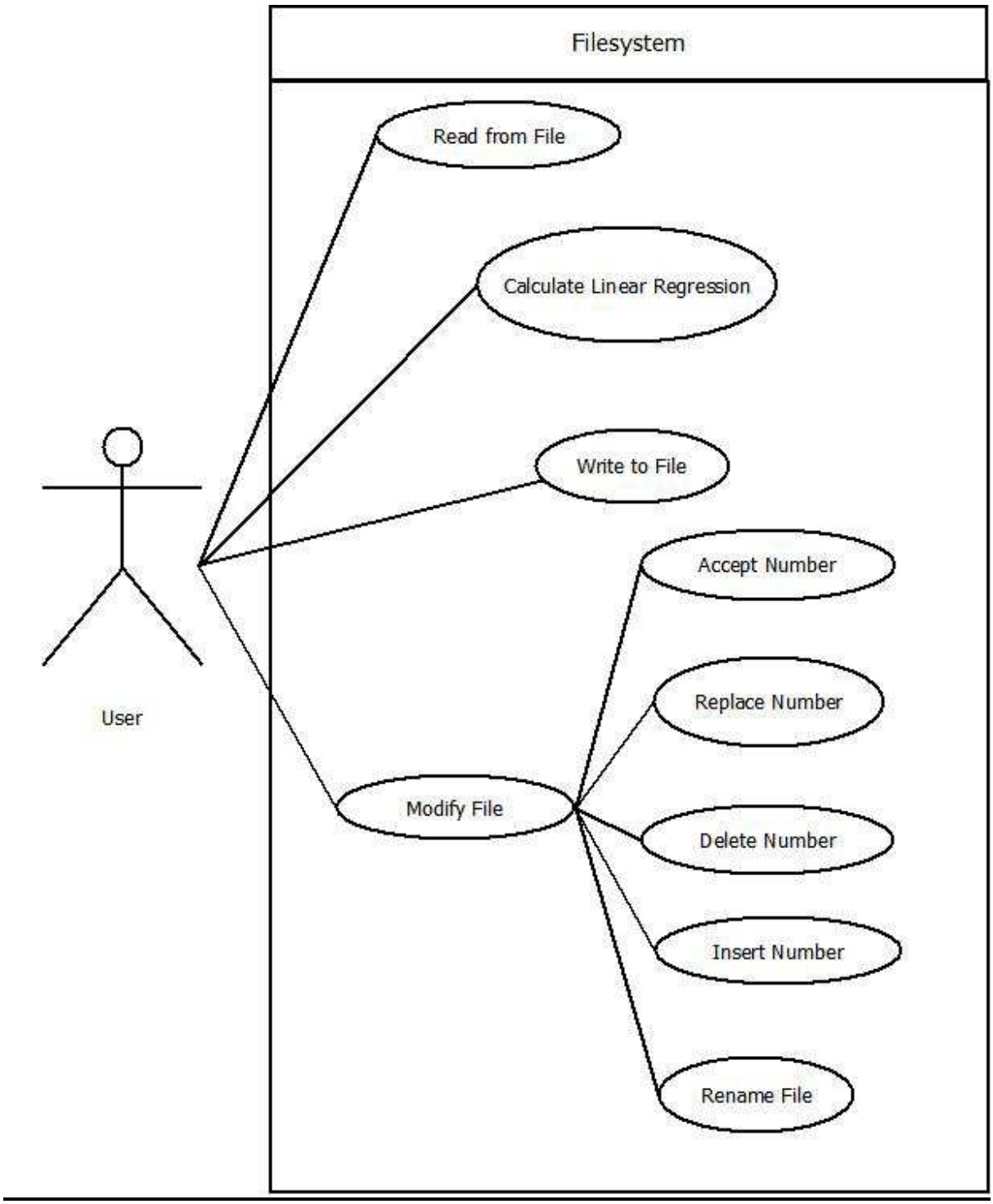
Test 4

```
jamess-imac:program AcousticTime$ ./program4A
What would you like to do?
Enter 1 to read from file.
Enter 2 to write to file.
Enter 3 to modify a file.
Enter 4 to calculate linear regression.
Enter 0 to quit.
Choice: 4
Enter the x-axis values filename: xe

Enter the y-axis values filename: yt2

B0 = 101.806
B1 = -0.0229592
```

UML Class Diagram



UML Use Case Diagram



Test	B0 Expected	B1 Expected	B0 Actual	B1 Actual
1	-22.55	1.7279	-22.5524	1.72793
2	-23.92	1.4310	-23.9238	1.43097
3	NA	NA	155.929	-0.482143
4	NA	NA	101.806	-0.0229592