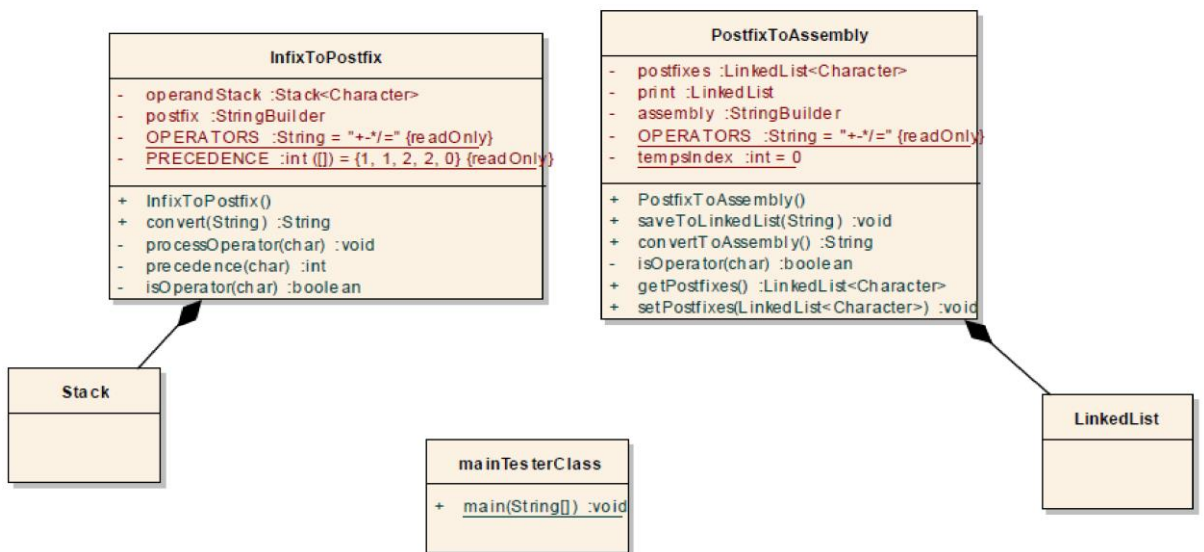


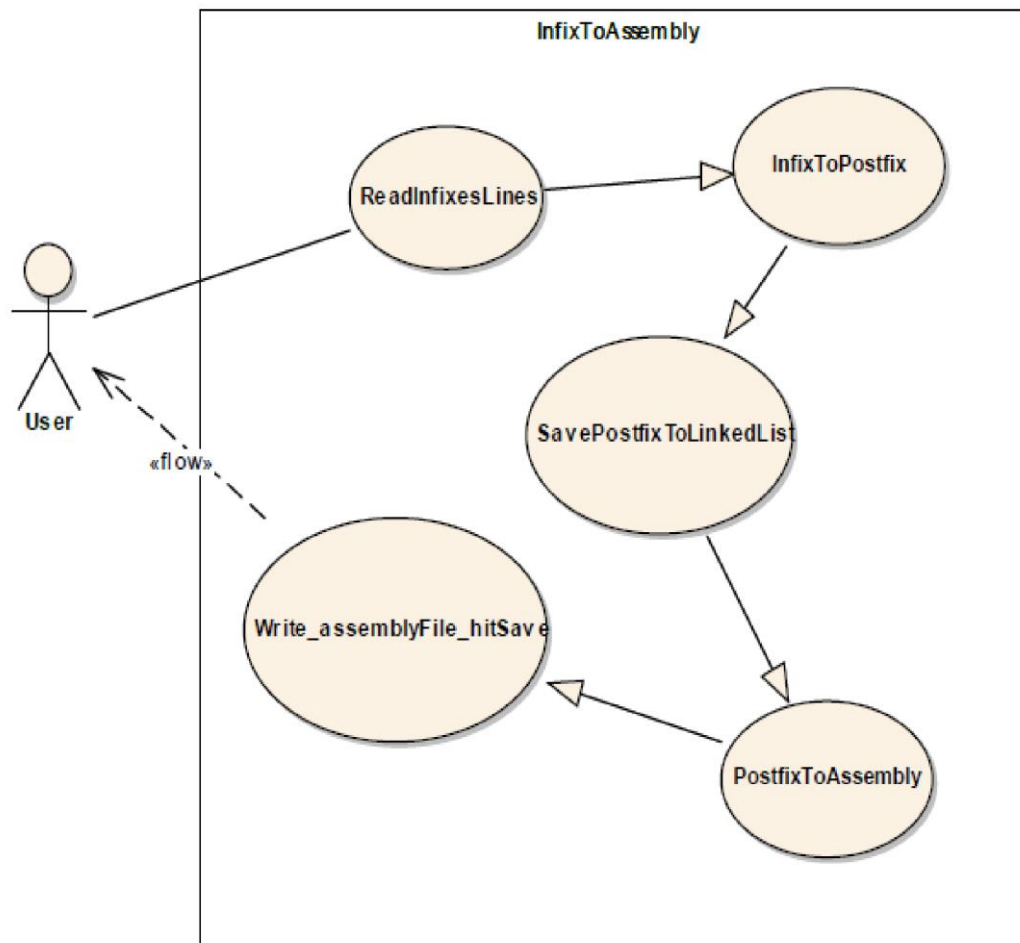
CSE222_HW04

ERCAN UCA 091044011

- ✓ **InfixToPostfix** Classım da
 - Character tipinde operandStack,
 - StringBuilder tipinde postfix,
 - Ve 2 tane sadece okunabilen static deęişken vardır(**OPERATORS**, **PRECEDENCE**)
- ✓ **InfixToPostfixin** ek olarak 4 methodu vardır.(Bunların 3'ü private'dır, 1'i tanesi publictir.)
 - **public String convert(String infix);**
 - ❖ **operandStack** ve **postfix** için yeni objeler oluşturulur(new ile.)
 - ❖ Ve dosyandan okunmuş infix Stringtokenizer ile yeni obje oluşturur.
 - ❖ **nextToken()** ile sonraki token alınır.
 - ❖ Alınan tokenlar kontrol edilerek stacke eklenir.(operatörler için)
 - ❖ Stacke ekleme yapılırken private methodlardan yardım alınır.
 - ❖ Stacke ekleme kurallarına göre eklenir öncelięe göre stack çalışır.
 - ❖ **EmptyStackExection** handle edilmiştir metodun içinde.
 - ❖ Çaęırılma şekli **InfixToPostfix obj = new InfixToPostfix();**
 - **infix = br.readLine();** // satır satır okuma, **br BufferedReader** objesi.
 - **String postfix = obj.covert(infix);**
 - **private void processOperator(char op);**
 - ❖ Bu metod gelen operatörü öncelięine göre işlem yapar.
 - ❖ **predecence()** methodu ile çalışır.
 - ❖ Sadece convert methodu çağırabilir **processOperator(chrOp);** şeklinde.
 - ❖ **EmptyStackException** handle edilmiştir.
 - **private int precedence(char op)**
 - ❖ Gelen operatörün öncelięini gönderir.
 - ❖ İnteger deęerler döndürür.
 - ❖ **OPERATOR.indexOf(op)** ile çalışır **PRECEDENCE**'daki indexi bulur
 - ❖ Ve o deęer döndürülür.
 - ❖ Çaęırılma şekli; **predecence(operator);**
- ✓ **Class Diagramı**



✓ Use Case Diagrams



✓ Tests

The screenshot displays the Test Results and Output windows of an IDE. The Test Results window on the left shows that all 4 tests passed with a 100.00% success rate. The tests listed are:

- com.mycompany.cse222_hw04_091044011_ercanuca_2016.InfixToPostfixTest
- testConvert passed (0,01 s)
- com.mycompany.cse222_hw04_091044011_ercanuca_2016.mainTesterClass
- testMain passed (0,0 s)
- com.mycompany.cse222_hw04_091044011_ercanuca_2016.PostfixToAssemblyTest
- testSaveToLinkedList passed (0,0 s)
- testConvertToAssembly_IllegalExp passed (0,0 s)

The Output window on the right shows the execution of the tests. It includes the following output:

```
TESTS
Running com.mycompany.cse222_hw04_091044011_ercanuca_2016.InfixToPostfixTest
convert
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.078 sec
Running com.mycompany.cse222_hw04_091044011_ercanuca_2016.mainTesterClassTest
main
li $t0,4          #a=4 in $t0.
li $t1,3          #b=3 in $t1.
li $t2,5          #d=5 in $t2.
div $t0,$t1
mflo $t2
mult $t2,$t3
mflo $t2
move $a0,$t2      #Move from $t2 to $a0.
li $v0,1          #Load $v0=1
syscall          #Print result.
Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.04 sec
Running com.mycompany.cse222_hw04_091044011_ercanuca_2016.PostfixToAssemblyTest
saveToLinkedList
convertToAssembly
Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0 sec
Results :
Tests run: 4, Failures: 0, Errors: 0, Skipped: 0
BUILD SUCCESS
Total time: 7.219s
Finished at: Wed Mar 23 00:15:35 EET 2016
```

```
mainTesterClass.java x PostfixToAssemblyTest.java x PostfixToAssembly.java x
Source History
68 * Test of convertToAssembly method, of class PostfixToAssembly.
69 * throws java.lang.IllegalArgumentException
70 * throws java.lang.Exception
71 * @throws java.lang.Exception
72 */
73 @Test(expected = IllegalArgumentException.class)
74 public void testConvertToAssembly_IllegalExp() throws IllegalArgumentException, Exception {
75     System.out.println("convertToAssembly");
76     PostfixToAssembly instance = new PostfixToAssembly();
77     String expResult = "a 3 0 / = ";
78     instance.saveToLinkedList(expResult);
79     String result1 = "div $t0,$t1\n" +
80                     "mflo $t2\n";
81     String result2= instance.convertToAssembly();
82     assertEquals(result1, result2);
83 }
84
85
86 }
```

Test Results x Output x

com.mycompany:cse222_hw04_091044011_ercanuca_2016:jar:1.0-SNAPSHOT x

100,00 %

Both tests passed.(0,08 s)

com.mycompany.cse222_hw04_091044011_ercanuca_2016.PostfixToAss

.PostfixToAssemblyTest x Test (PostfixToAssemblyTest) x

BUILD SUCCESS

Total time: 1.440s
Finished at: Tue Mar 22 23:02:58 EET 2016
Final Memory: 5M/16M

Test Results x mainTesterClass.java x InfixTo... x InfixToPostfixTest.java x

com.mycompany:cse222_hw04_091044011_ercanuca_2016:jar:1.0-SNAPSHOT x

100,00 %

ssed.(0,075 s)

n.mycompany.cse222_hw04_091044011_ercanuca_2016.InfixToPostfixT

testConvert passed (0,016 s)

Source History

```
40 /**
41  * Test of convert method, of class InfixToPostf
42  */
43 @Test
44 public void testConvert() {
45     System.out.println("convert");
46     String infix = "a + b";
47     InfixToPostfix instance = new InfixToPostfix
48     String expResult = "a b + ";
49     String result = instance.convert(infix);
50     assertEquals(expResult, result);
51 }
52
53
54
55 }
```

Output - Test (InfixToPostfixTest) x

TESTS

Running com.mycompany.cse222_hw04_091044011_ercanuca_2016.InfixToPostfixTest

convert

.a b + .

.a b + .

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.06 sec

Results :

✓ **Main tests**

-----Tester I-----

infix:

a = 4

b = 3

d = a / b * 5

print d

li \$t0,4 #a=4 in \$t0.

li \$t1,3 #b=3 in \$t1.

li \$t2,5 #d=5 in \$t2.

div \$t0,\$t1

mflo \$t2

mult \$t2,\$t3

mflo \$t2

move \$a0,\$t2 #Move from \$t2 to \$a0.

li \$v0,1 #Load \$v0=1 .

syscall #Print result.

-----Tester I END-----

✓ **Ödev github linki**

https://github.com/erccanuca/cse222_hw04.git

(Ödev teslim süresi geçince public yapılacaktır.)