

A MECHANICAL INVESTIGATION PRODUCTION SYSTEM FOR SOFTWARE QUALITY ASSURANCE

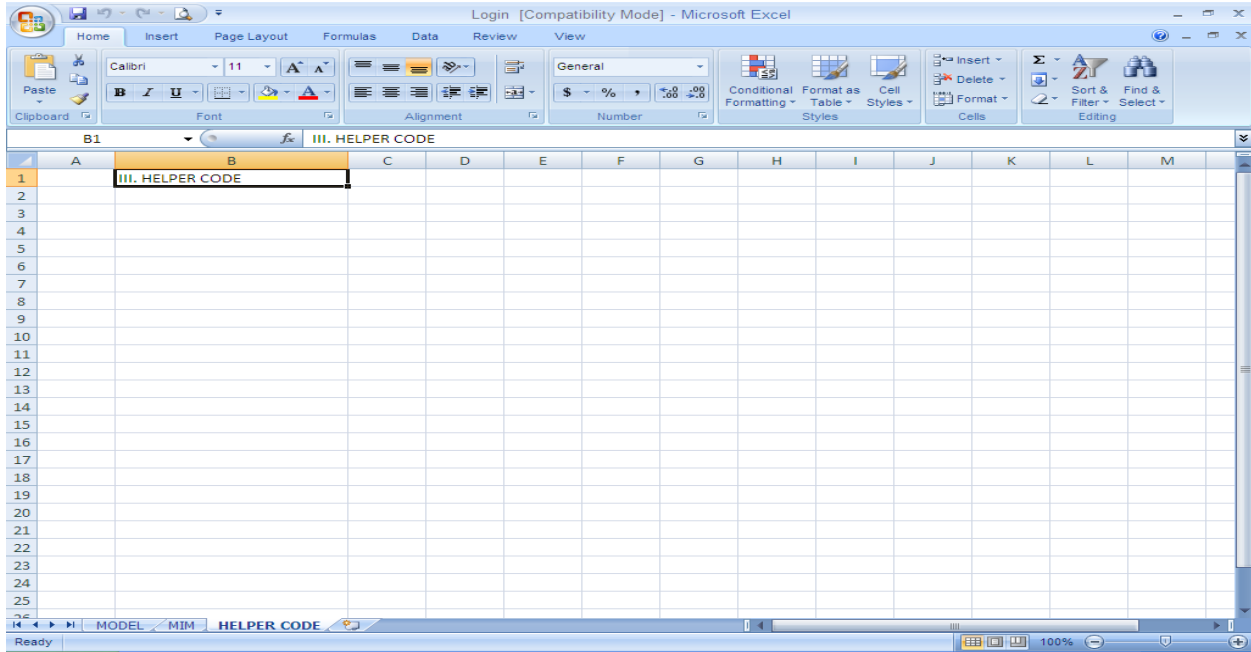
Model sheet

MODEL	Event	Start state	End state	Guard	Postcondition
I. MODEL	State machine				
MODEL	getUsername	OPEN	OPEN		
MODEL	username	OPEN	Failed	username.length()<=0	
MODEL	getPassword	OPEN	OPEN		
MODEL	password	OPEN	FAILED	password.length()<=0	
INIT	OPEN				
GOAL	FAILED				

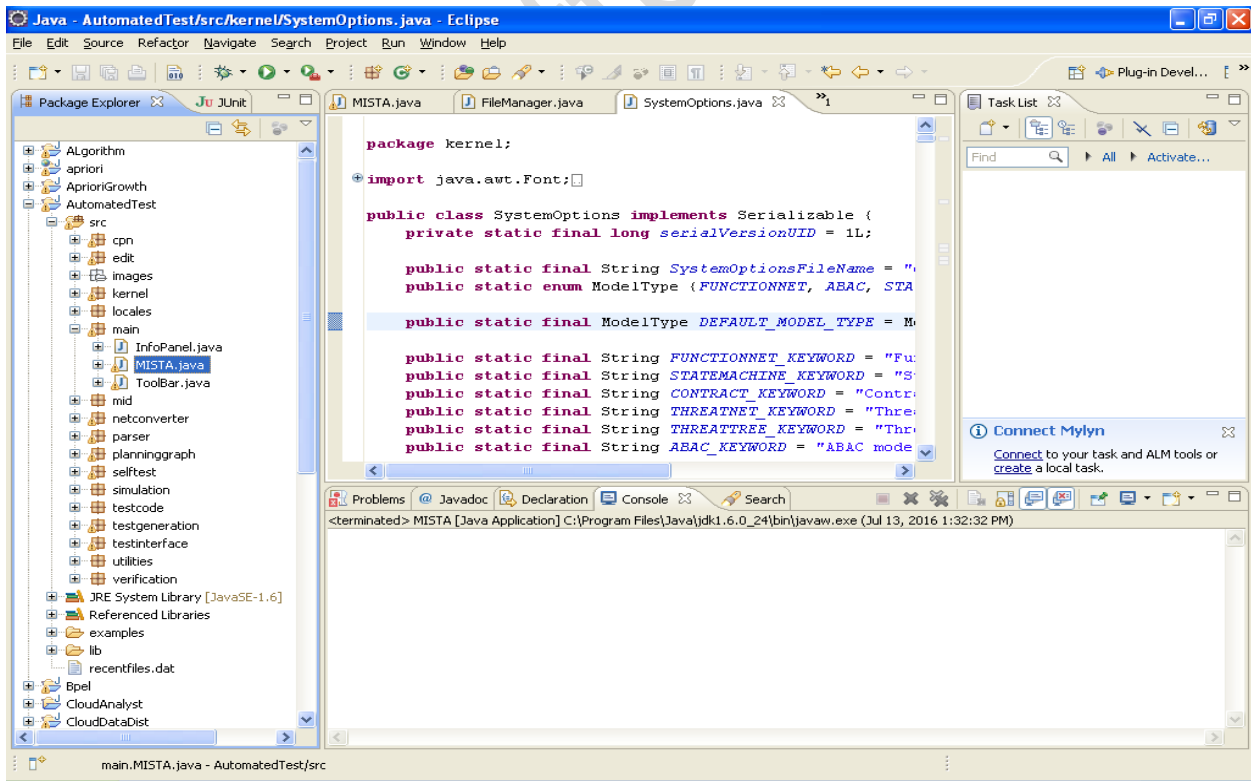
MIM Sheet

CLASS	PREDICATE	ACCESSOR	MUTATOR
LoginValidate			
Failed		loginvalidate.getUserLength() <=0 loginvalidate.getPasswordLength() <= 0	
PARAMETERS	new("abcd","abcd")		

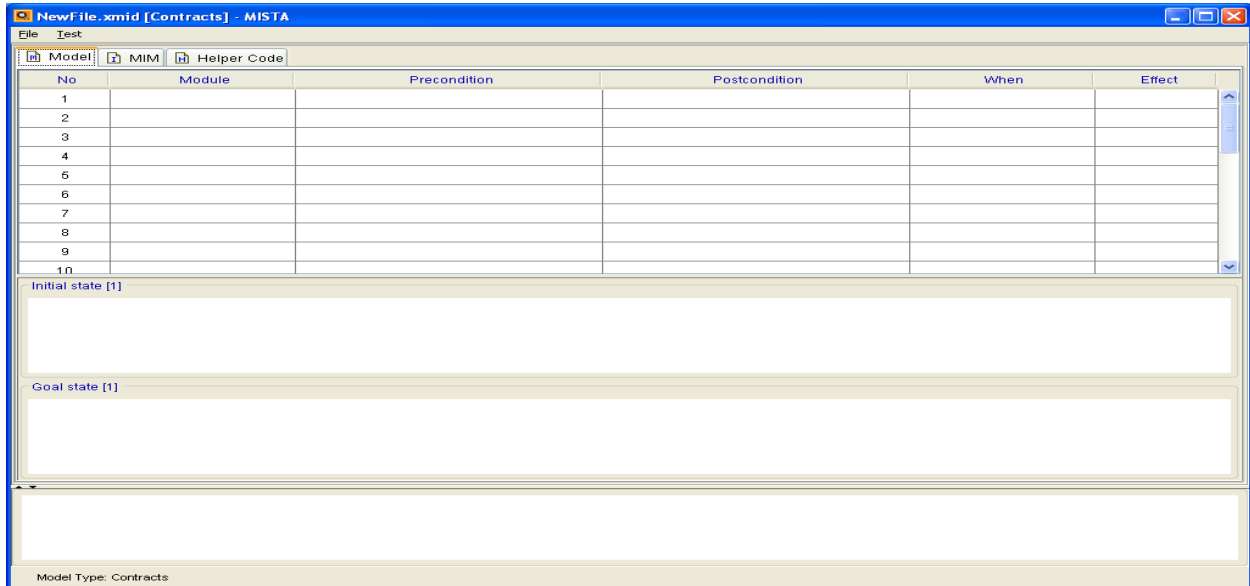
If u r creating new one just change class name as Helper Code sheet, Rest u can keep same.



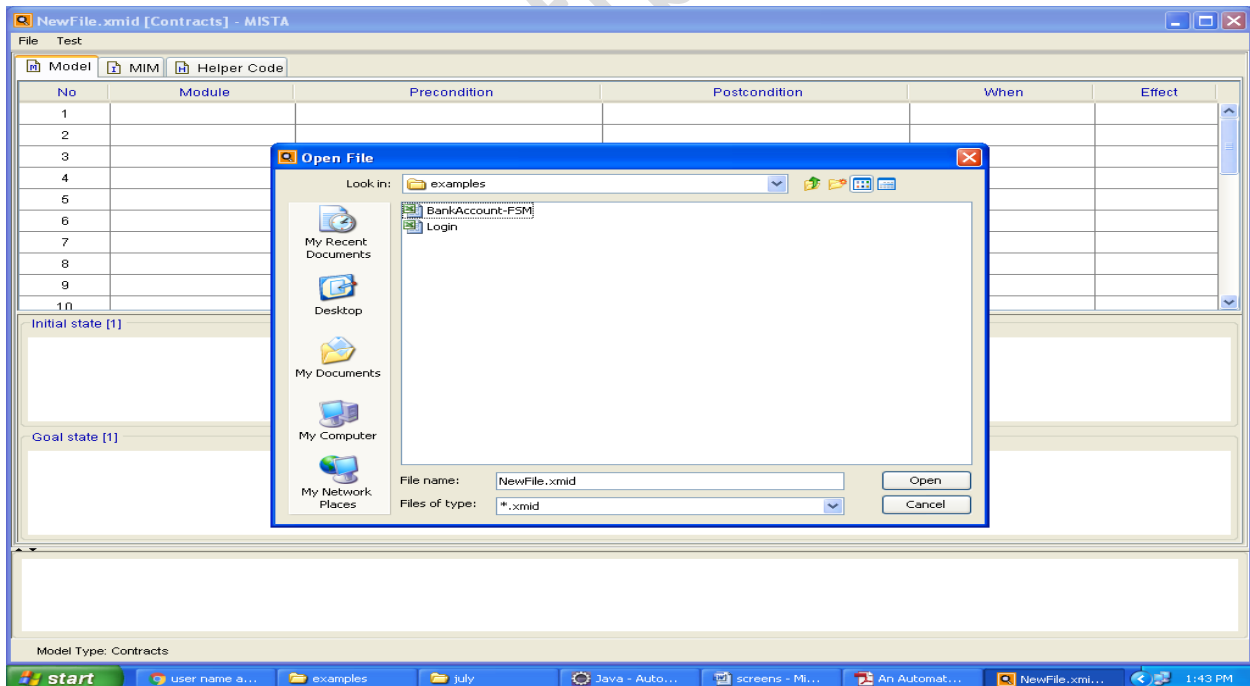
Open project in eclipse and run



Now right clicks 'MISTA.java' and choose run as java application to get below screen



Now go to file and select upload option



Select any one excel file

No	Event	Source State	Destination State	Precondition	Postcondition
1	getBalance	OPEN	OPEN		
2	deposit	OPEN	OPEN	amt>=0	
3	withdraw	OPEN	OPEN	b-amt>=0	
4	withdraw	OPEN	OVERDRAWN	b-amt<0 && b-amt>-1000	
5	close	OPEN	CLOSED		
6	deposit	OVERDRAWN	OPEN	b+amt>=0	
7	deposit	OVERDRAWN	OVERDRAWN	b+amt<0	
8	getBalance	OVERDRAWN	OVERDRAWN		
9					

Initial state [1]
OPEN

Goal state [1]
OVERDRAWN

Model Type: State Machine [Read Only]

Test code

```
//Test code generated by MISTA

public class BankAccountTester_RT{

    private BankAccount bankaccount;

    public void setUp() throws Exception {
        bankaccount = new BankAccount();
    }

    public void test1() throws Exception {
        System.out.println("Test case 1");
        setUp();
        bankaccount.getBalance();
        assert !bankaccount.getClosed() && bankaccount.getBalance() >= 0 : "1_1";
    }

    public void test2() throws Exception {
        System.out.println("Test case 2");
        setUp();
        bankaccount.deposit(); //constraint: amt>=0
        assert !bankaccount.getClosed() && bankaccount.getBalance() >= 0 : "1_2";
    }

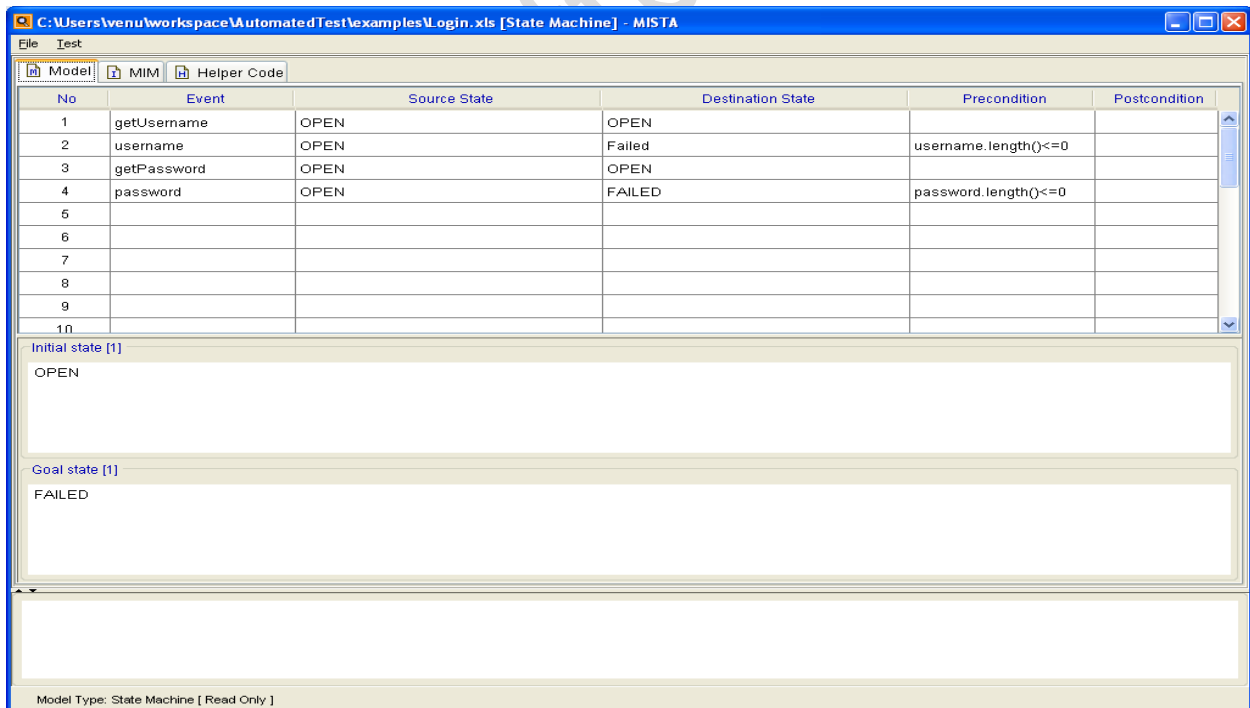
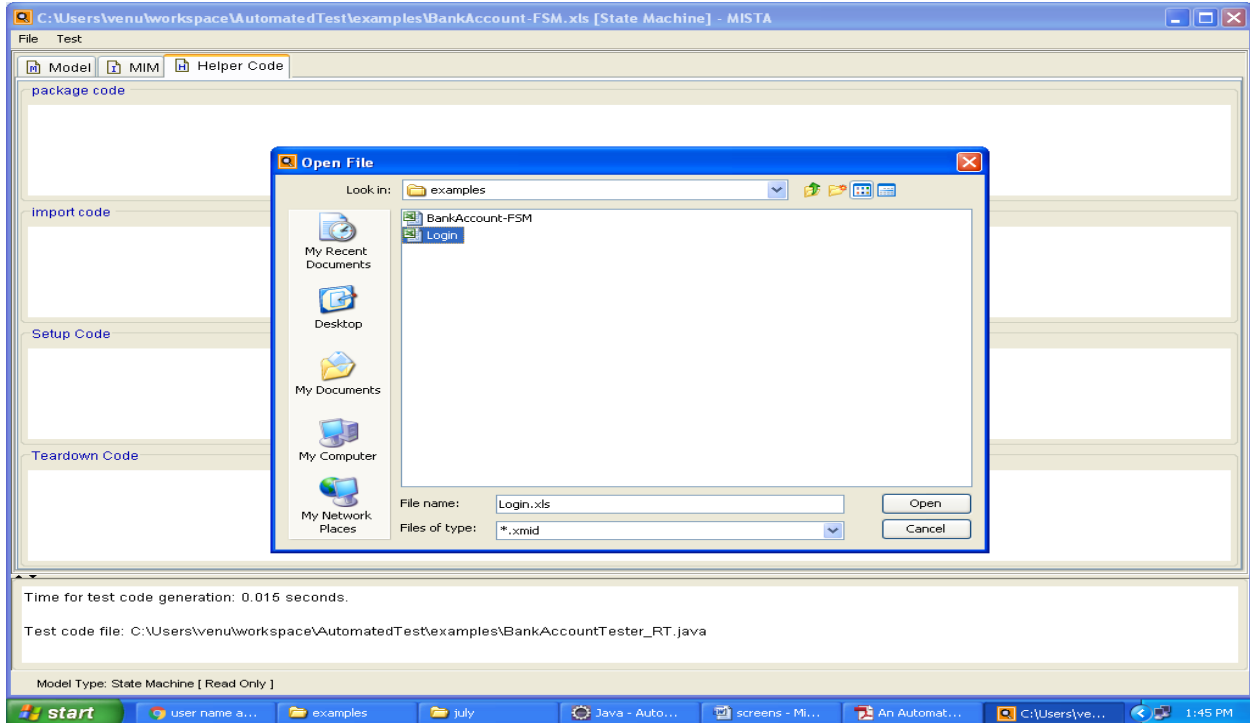
    public void test3() throws Exception {
        System.out.println("Test case 3");
        setUp();
        bankaccount.withdraw(); //constraint: b-amt>=0
        assert !bankaccount.getClosed() && bankaccount.getBalance() >= 0 : "1_3";
    }
}

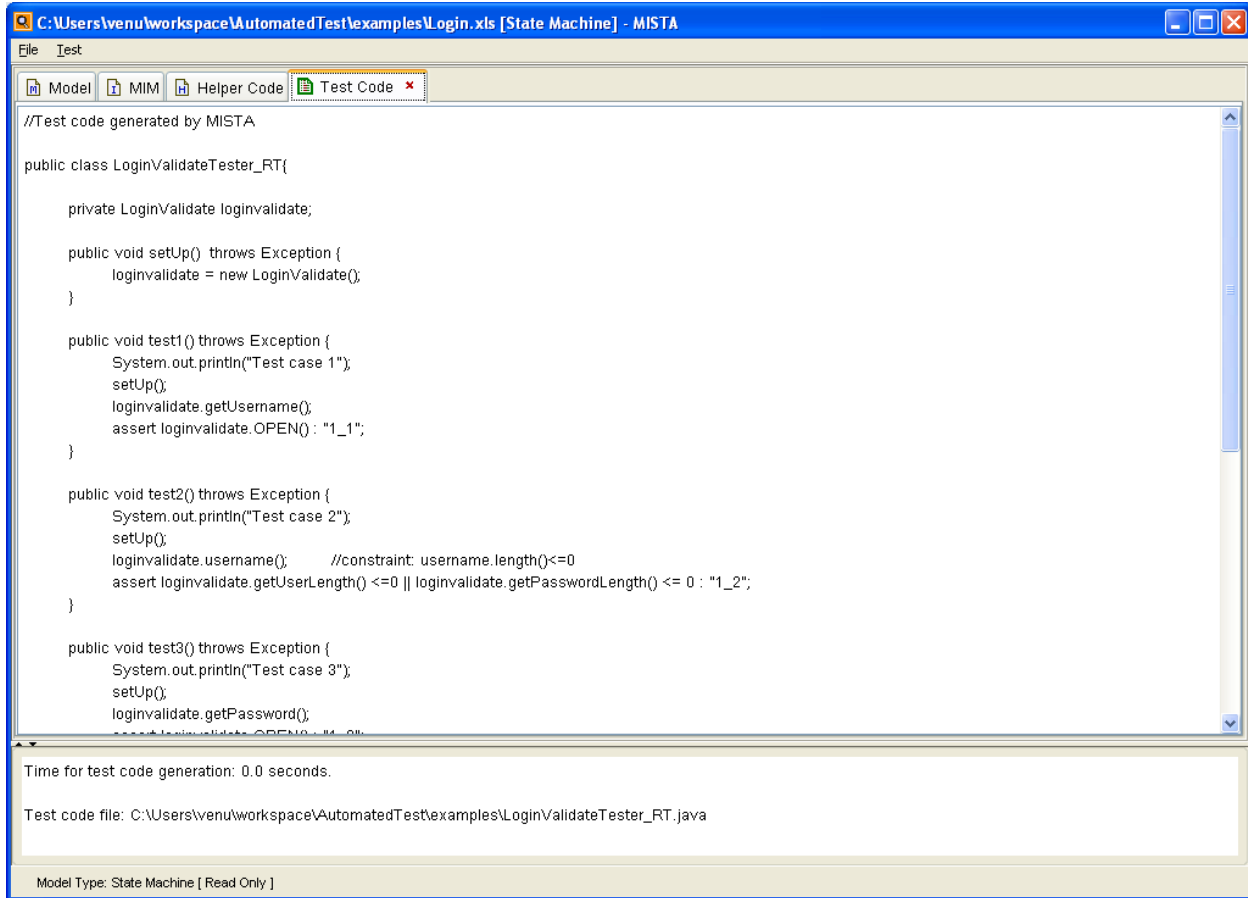
Time for test code generation: 0.015 seconds.

Test code file: C:\Users\venu\workspace\AutomatedTest\examples\BankAccountTester_RT.java

Model Type: State Machine [ Read Only ]
```

The above screen showing generated test cases. Similarly u can test with login also





The screenshot shows the MISTA software interface. The title bar indicates the file path: C:\Users\venu\workspace\AutomatedTest\examples\Login.xls [State Machine] - MISTA. The main window contains a code editor with the following Java code:

```
//Test code generated by MISTA

public class LoginValidateTester_RT{

    private LoginValidate loginvalidate;

    public void setUp() throws Exception {
        loginvalidate = new LoginValidate();
    }

    public void test1() throws Exception {
        System.out.println("Test case 1");
        setUp();
        loginvalidate.getUsername();
        assert loginvalidate.OPEN() : "1_1";
    }

    public void test2() throws Exception {
        System.out.println("Test case 2");
        setUp();
        loginvalidate.username(); //constraint: username.length()<=0
        assert loginvalidate.getUserLength() <=0 || loginvalidate.getPasswordLength() <= 0 : "1_2";
    }

    public void test3() throws Exception {
        System.out.println("Test case 3");
        setUp();
        loginvalidate.getPassword();
        assert loginvalidate.OPEN() : "1_3";
    }
}
```

Below the code editor, the interface displays the following information:

- Time for test code generation: 0.0 seconds.
- Test code file: C:\Users\venu\workspace\AutomatedTest\examples\LoginValidateTester_RT.java
- Model Type: State Machine [Read Only]

Notes : save new excel file as 97-2003 workbook format