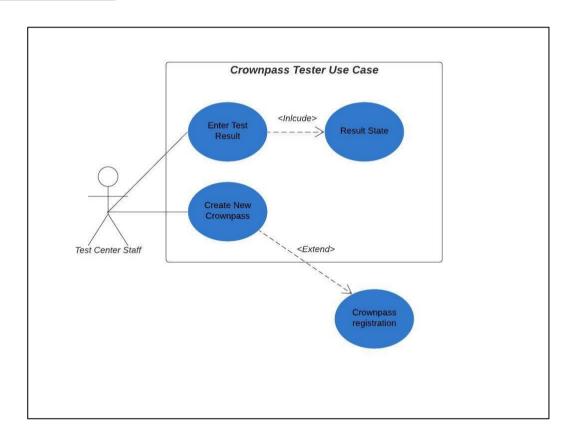
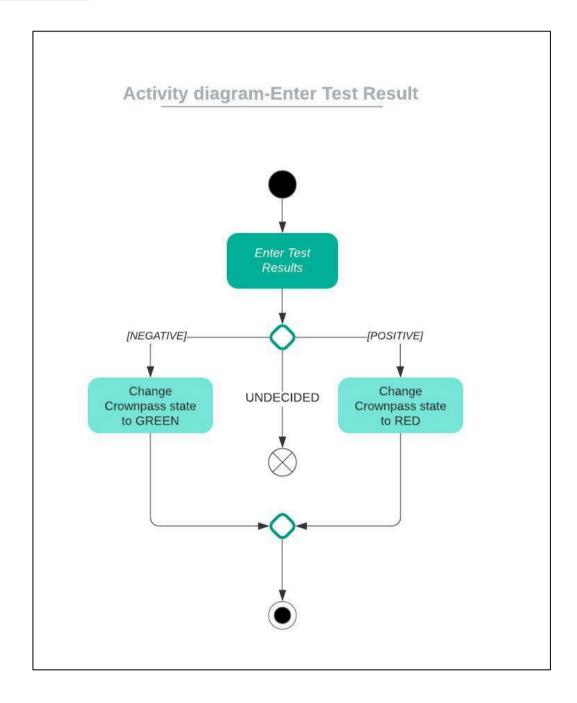
# **Software Engineering – Crownpass Tester**

## Task 1 - Software Modelling and Specification

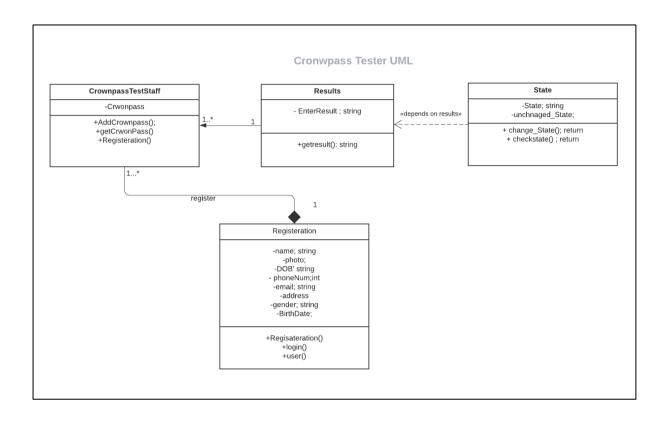
### **Use Case Model:**



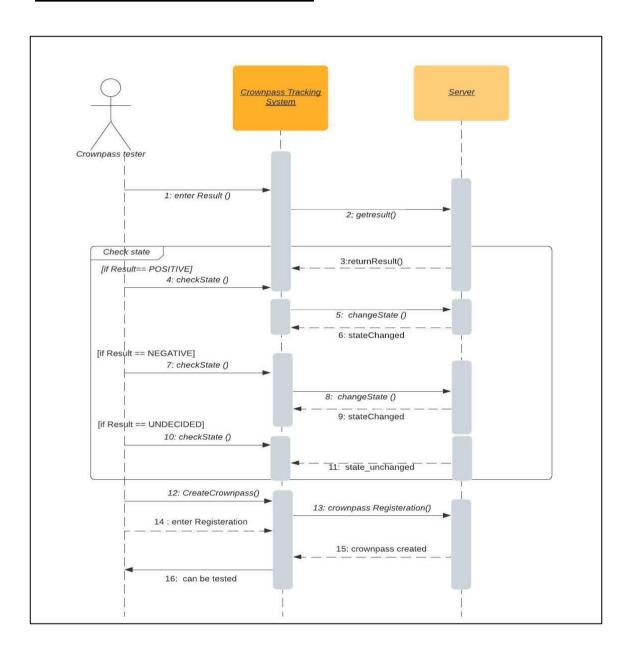
# **Activity Model**



## **Structural Model**

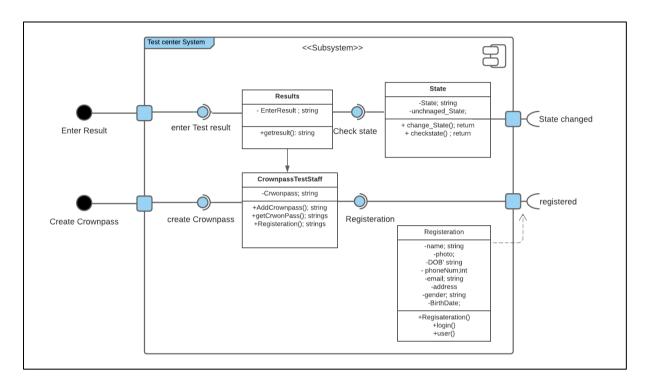


### **Behavioural Model - Sequence Diagram**



### TASK 2 - Software Architectural Design

### **Component Diagram**



#### **TASK 3: Software Testing**

### Unit-test plan

Test Case	Methods & Parameters	Expected Outputs
Correct input	getResult (Positive)	-State changed
Correct input	getResult (Negative)	-State changed
Correct input	getResult(Undecided)	-State unchnaged
Incorrect inputs	getResult (East)	Error Message
Empty result	getResult (NULL)	-Error Message: Please type in your result

### System-Test plan

Use Case: Enter Result

**Scenario:** Successful change to the State of the Result NEGATIVE.

Test Staff	Test Centre tracking System
1.Enter Test result	2.Check Result/State
	3. if Results == NEGATIVE change State to GREEN no matter what
	state it is in
	State changed to GREEN Successfully Notification
5. View State	

**Use Case:** Enter Result

Scenario: Successful change to the State of the Result POSITIVE.

Test Staff	Test Centre tracking System
1.Enter Result	2.Check Result/State
	3.If the Result == POSITVIE change State to RED no matter what state it is in.
	4. State changed to RED Successfully Notification
5. View State	

Use Case: Enter Result

Scenario: Undecided Result should remain as it is

Test Staff		Test Centre tracking System
1.Enter Result		2.Check Result/State
		3. if the Result == UNDECIDED, State should remain as it is
		4. State Unchanged Notification
5. view (Unchanged)	State	

#### **Derive Test from Scenario**

#### Test Data:

- Input:
  - Enter Result: Result; NEGATIVE, POSITIVE, UNDECIDED
  - o State: RED, GREEN
- Stored Data
  - o On Staff Apps: View State change, results Stored.
  - On Staff Tracking System:
- Output:
  - o State changed to the correct criteria
  - o POSITIVE: RED
  - NEGATIVE: GREEN

#### **Test Process:**

- 1. Set up Test Context
  - a. In staff App: 3 choices Negative, Positive or UNDECIDED only
  - b. Result Database: (a) To contain the staff Result entered with the States that has been changed. (b) The Result state should meet the criteria given in the Test Data section. POSITIVE: RED, NEGATIVE: GREEN.
- 2. Enter Results:
  - a. Expected: NEGATIVE, POSTIVE, UNDECIDED
  - b. Check: if the Result matches the criteria
- 3. Change State Request
  - a. Expected output: Positive to red and negative to green, undecided should remain as it is.
  - b. Check: if the state matches the criteria given.
- 4. View State in the app
  - a. Expected output: The State is changed when the result is given. Undecided should keep the state as it is.