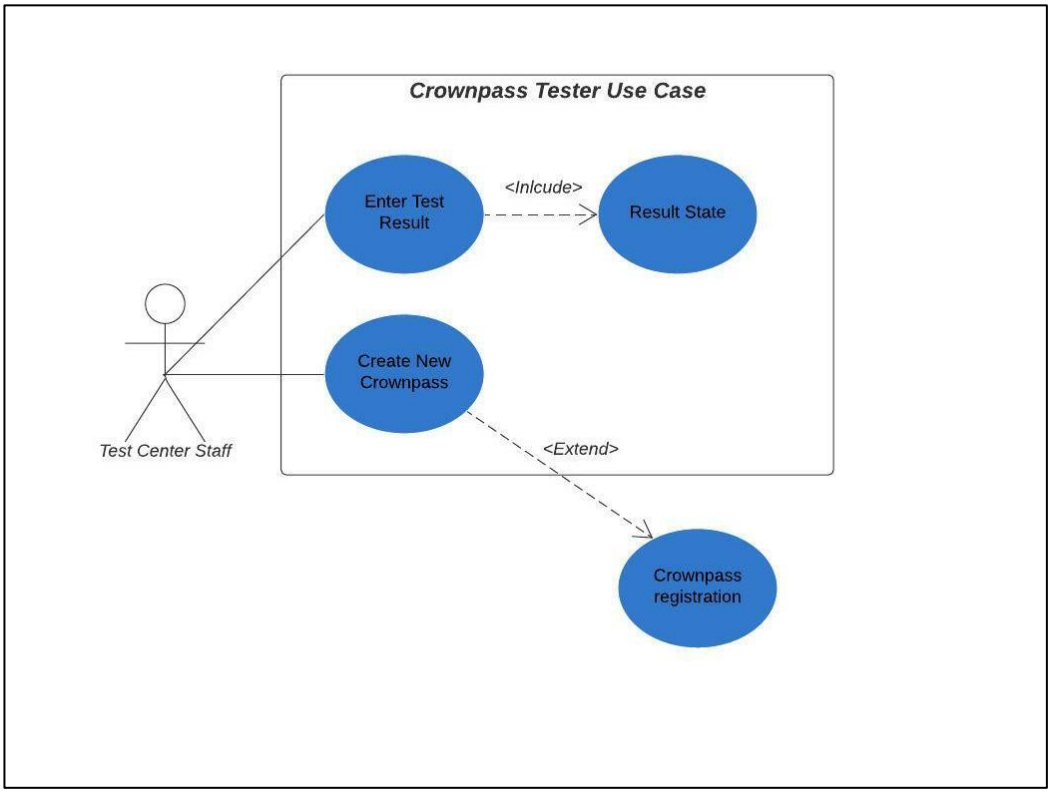
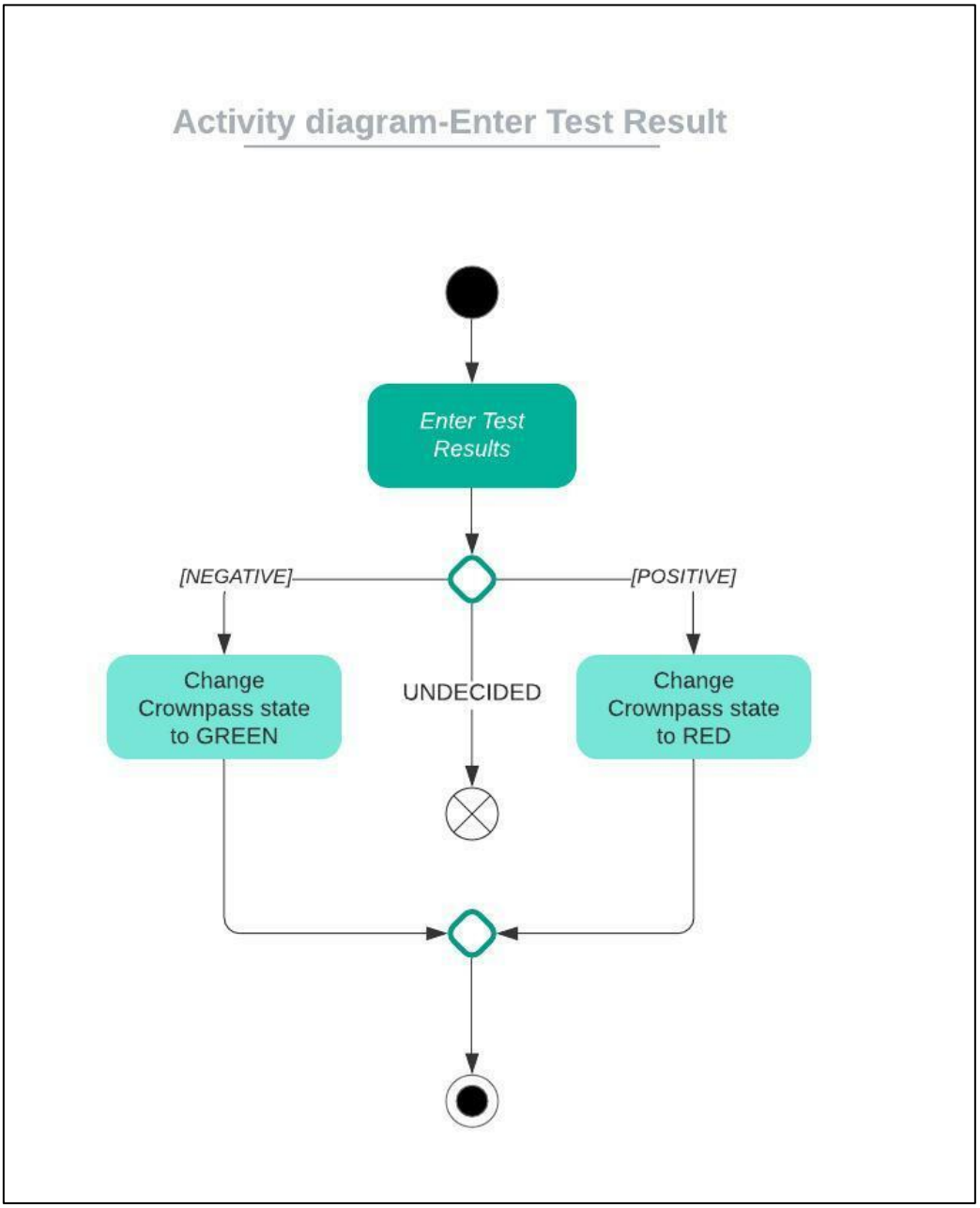
Software Engineering – Crownpass Tester

Task 1 - Software Modelling and Specification

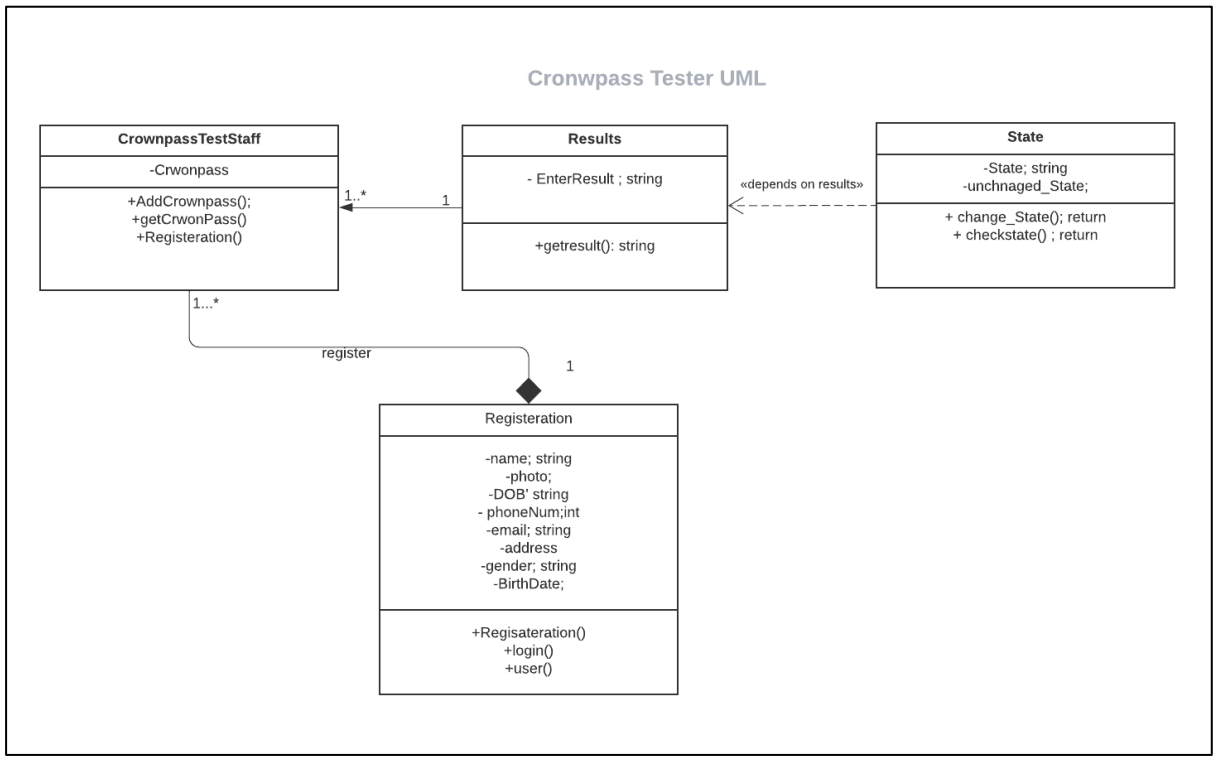
Use Case Model:



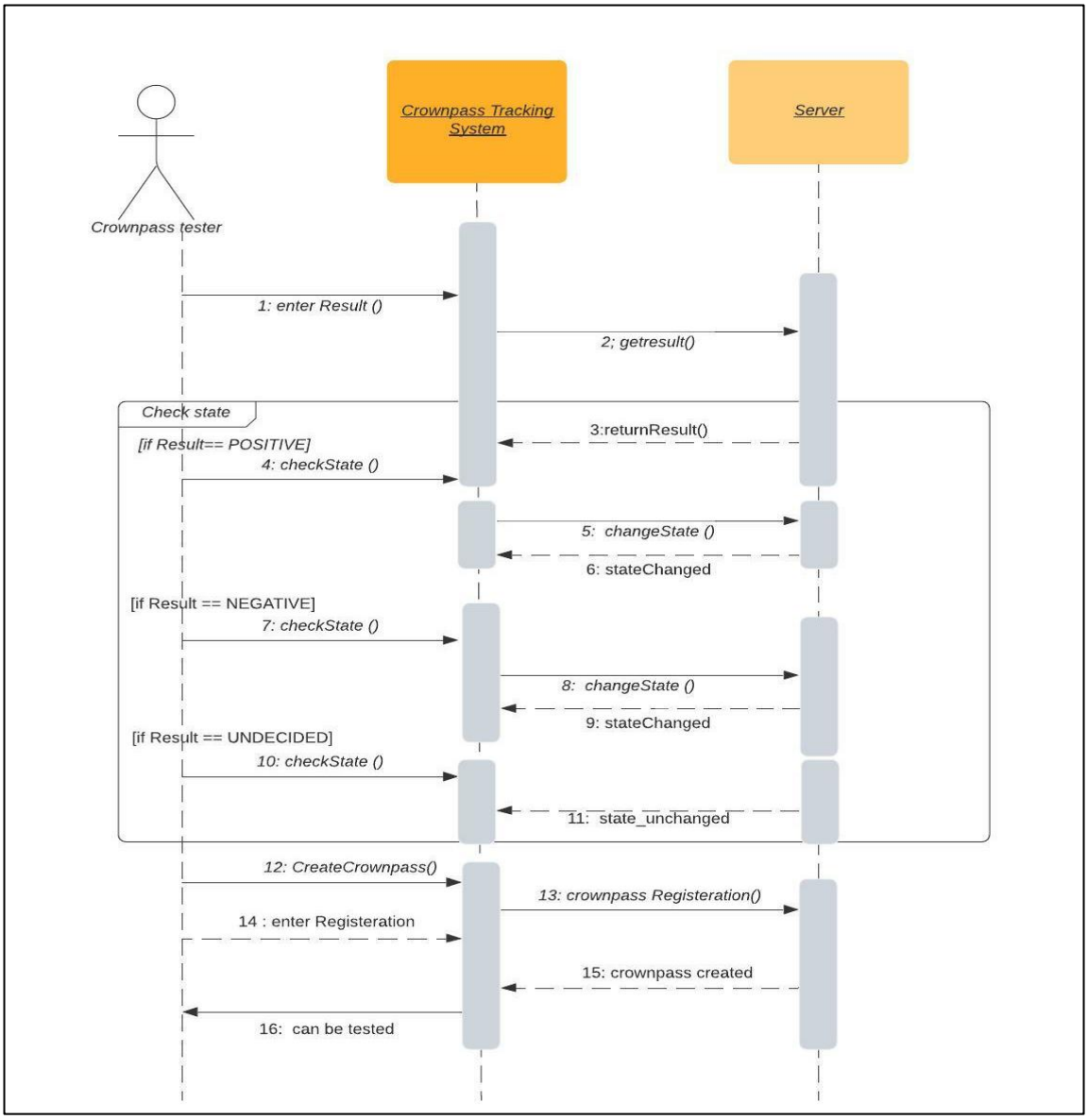
Activity Model



Structural Model

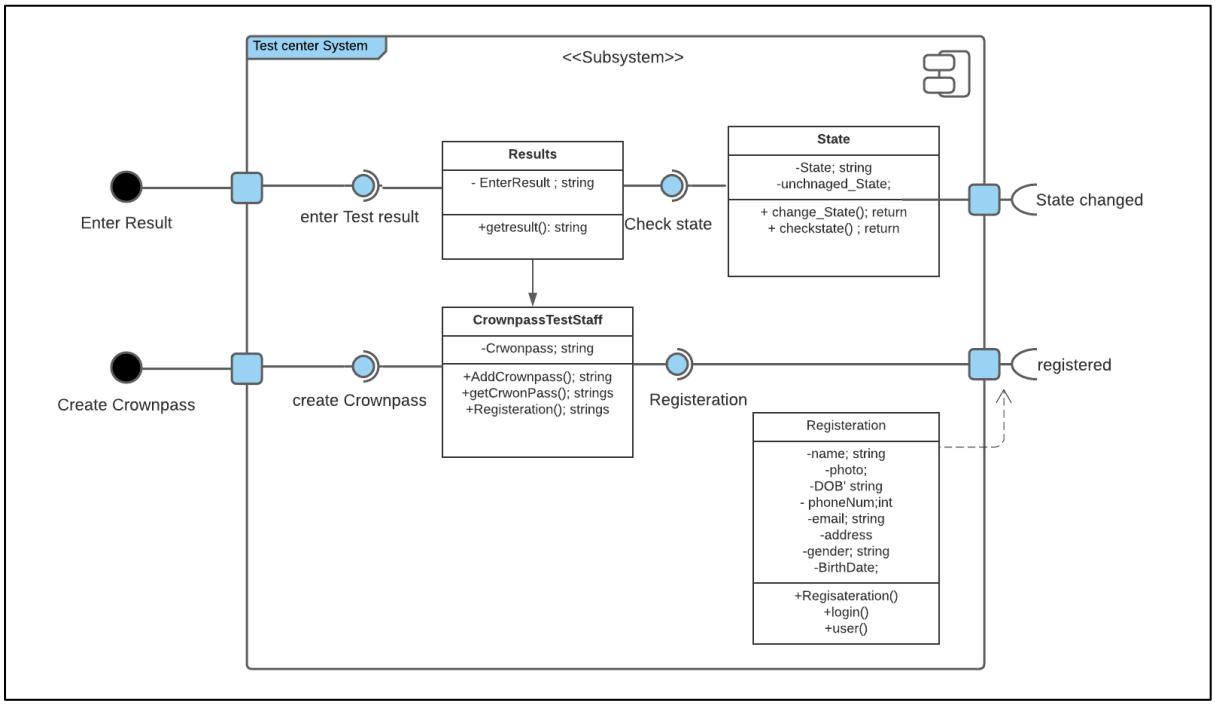


Behavioural Model – Sequence Diagram

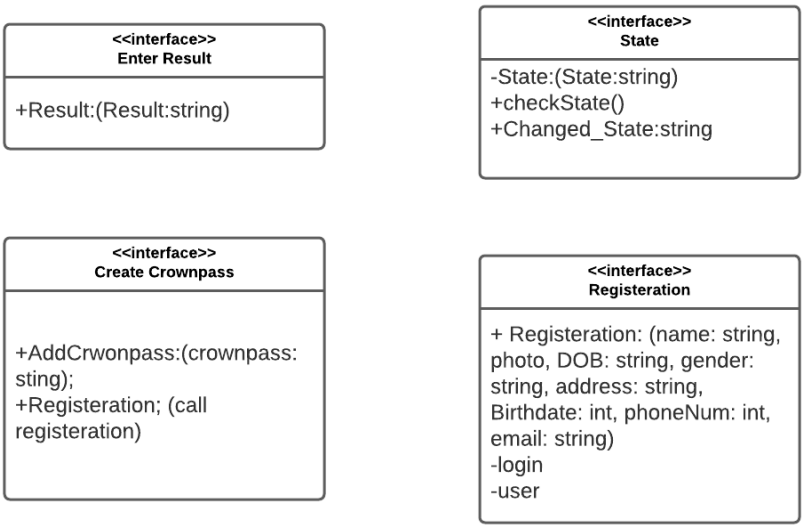


TASK 2 - Software Architectural Design

Component Diagram

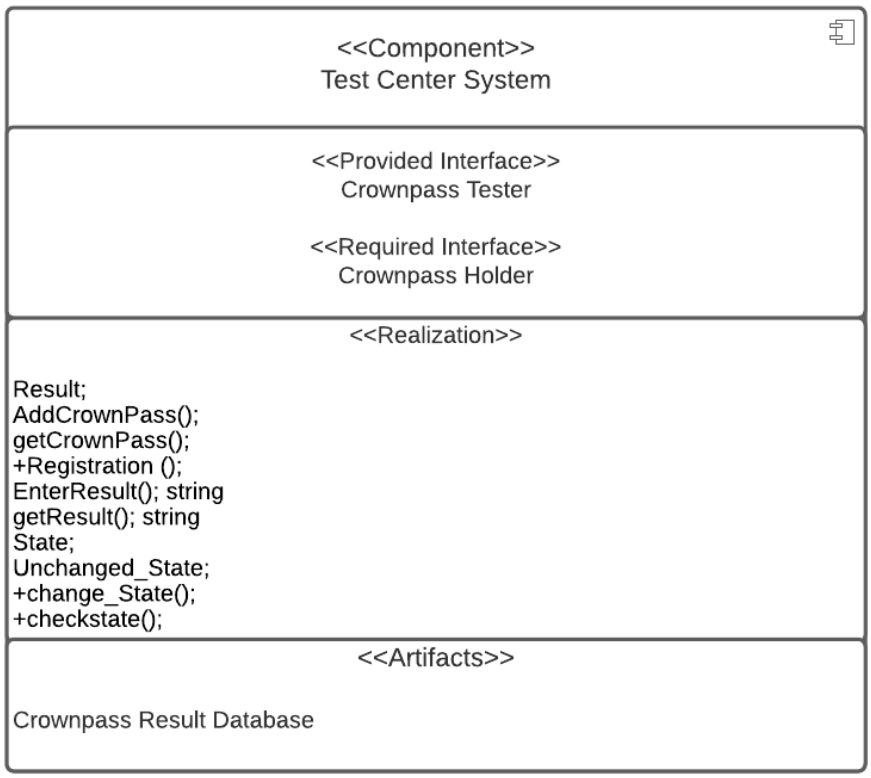


Specification:



Specification of Components (Database)

Component:	The Result Data
Description:	This is a database that stores information for Crownpass Tester staff results to be stored. Its either negative or positive or undecided. As well this also shows the state of the results.
Design	Results, States
Table : Results	EnterResults; Results; getResults
Table: State	Change_State, unchanged_State; checkState; State



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
	4. 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 State (Unchanged)	

Derive Test from Scenario

Test Data:

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