**1.0 Test plan**

**Table 1.1: Test plan for Covid management system**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Description | Pre-Condition | Expected Input | Expected Output | Actual Output |
| HL1\_L1\_1 | Number of patients visited | Choose visits from all the covid operations | Two int operands | Sum of the two operands |  |
| HL1\_L1\_1 | Number of patients visited | Choose visits from all the covid operations | Any one operand is not valid | Error value as the return value |  |
| HL2\_L1\_1 | Number of patients visited and tested positive | Choose infected positive from all covid operations | Two int operands | Sum of the two operands |  |
| HL2\_L1\_1 | Number of patients visited and tested positive | Choose infected positive from all covid operations | Any one operand is not valid | Error value as the return value |  |
| HL2\_L2\_1 | Number of patients visited and tested negative | Choose infected negative from all covid operations | Two int operands | Subtract the two operands |  |
| HL2\_L2\_1 | Number of patients visited and tested negative | Choose infected negative from all covid operations | Any one operand is not valid | Error value as the return value |  |
| HL3\_L1\_1 | Number of patients tested positive and died | Choose infected positive and died from all operations | Two int operands | Sum of the two operands |  |
| HL3\_L1\_2 | Number of patients tested positive and died | Choose infected positive and died from all operations | Any one operand is not valid | Error value as the return value |  |
| HL4\_L1\_1 | Number of patients tested positive and recovered | Choose infected positive and recovered from all operations | Two int operands | Subtract the two operands |  |
| HL4\_L1\_1 | Number of patients tested positive and recovered | Choose infected positive and recovered from all operations | Any one operand is not valid | Error value as the return value |  |
| HL5\_L1\_1 | Number of patients revisited the hospital and tested positive | Choose revisited and positive from all operations | Two int operands | Sum of the two operands |  |
| HL5\_L1\_2 | Number of patients revisited the hospital and tested positive | Choose revisited and positive from all operations | Any one operand is not valid | Error value as the return value |  |
| HL5\_L2\_1 | Number of patients revisited the hospital and tested negative | Choose revisited and negative from all operations | Two int operands | Subtract the two operands |  |
| HL5\_L2\_2 | Number of patients revisited the hospital and tested negative | Choose revisited and negative from from all operations | Any one operand is not valid | Error value as the return value |  |
| HL6\_L1\_1 | Number of patients who are home quarantined | Choose infected positive and home quarantined from all operations | Two int operands | Sum of the two operands |  |
| HL6\_L1\_2 | Number of patients who are home quarantined | Choose infected positive and home quarantined from all operations | Any one operand is not valid | Error value as the return value |  |
| HL6\_L2\_1 | Number of patients who are hospital quarantined | Choose infected positive and hospital quarantined from all operations | Two int operands | Sum of the two operands |  |
| HL6\_L2\_2 | Number of patients who are hospital quarantined | Choose infected positive and hospital quarantined from all operations | Any one operand is not valid | Error value as the return value |  |
| HL6\_L3\_1 | Number of patients who have completed 14 days isolation | Choose infected positive and completed 14 days isolation from all operations | Two int operands | Sum of the two operands |  |
| HL6\_L3\_2 | Number of patients who have completed 14 days isolation | Choose infected positive and completed 14 days isolation from all operations | Any one operand is not valid | Error value as the return value |  |
| HL7\_L1\_1 | Number of patients who are different state and tested positive | Choose infected positive from different state from all operations | Two int operands | Sum of the two operands |  |
| HL7\_L1\_2 | Number of patients who are different state and tested positive | Choose infected positive from different state from all operations | Any one operand is not valid | Error value as the return value |  |
| HL7\_L2\_1 | Number of patients who are different state and tested negative | Choose infected negative from different state from all operations | Two int operands | Sum of the two operands |  |
| HL7\_L2\_2 | Number of patients who are different state and tested negative | Choose infected negative from different state from all operations | Any one operand is not valid | Error value as the return value |  |
| HL8\_L1\_1 | Number of patients who are affected from primary contact | Choose infected from primary contact from all operations | Two int operands | Sum of the two operands |  |
| HL8\_L1\_2 | Number of patients who are affected from primary contact | Choose infected from primary contact from all operations | Any one operand is not valid | Error value as the return value |  |
| HL8\_L2\_1 | Number of patients who are affected from secondary contact | Choose infected from secondary contact from all operations | Two int operands | Sum of the two operands |  |
| HL8\_L2\_2 | Number of patients who are affected from secondary contact | Choose infected from secondary contact from all operations | Any one operand is not valid | Error value as the return value |  |
| HL9\_L1\_1 | Percentage of infected rate | Choose percentage of infected rate from all operations | Two non zero int operands | Percentage of two operands |  |
| HL9\_L1\_2 | Percentage of infected rate | Choose percentage of infected rate from all operations | Two int operands with divisor 0 | Divide by 0 error |  |
| HL9\_L2\_1 | Percentage of death rate | Choose percentage of death rate from all operations | Two non zero int operands | Percentage of two operands |  |
| HL9\_L2\_2 | Percentage of death rate | Choose percentage of death rate from all operations | Two int operands with divisor 0 | Divide by 0 error |  |
| HL9\_L3\_1 | Percentage of recovery rate | Choose percentage of recovery rate from all operations | Two non zero int operands | division of two operands |  |
| HL9\_L3\_2 | Percentage of recovery rate | Choose percentage of recovery rate from all operations | Two int operands with divisor 0 | Divide by 0 error |  |

**2.0 Test cases and output**

**Table 2.1: Test cases and output for Covid management system**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID | Description | Pre-Condition | Expected Input | Expected Output | Actual Output | Test Result |
| HL1\_L1\_1 | Number of patients visited | Choose visits from all the covid operations | Two int operands  visits(10, 20) | 30 | 30 | PASS |
| HL1\_L1\_1 | Number of patients visited | Choose visits from all the covid operations | Two int operands  visits(750, 7500) | 8250 | 1500 | FAIL |
| HL2\_L1\_1 | Number of patients visited and tested positive | Choose infected positive from all covid operations | Two int operands positive(0, 3) | 3 | 3 | PASS |
| HL2\_L1\_1 | Number of patients visited and tested positive | Choose infected positive from all covid operations | Two int operands positive(1000, 900) | 1900 | 1 | FAIL |
| HL2\_L2\_1 | Number of patients visited and tested negative | Choose infected negative from all covid operations | Two int operands negative(10, 3) | 7 | 7 | PASS |
| HL2\_L2\_1 | Number of patients visited and tested negative | Choose infected negative from all covid operations | Two int operands negative(1000, 900) | 100 | 1 | FAIL |
| HL3\_L1\_1 | Number of patients tested positive and died | Choose infected positive and died from all operations | Two int operands died(20, 7) | 27 | 27 | PASS |
| HL3\_L1\_2 | Number of patients tested positive and died | Choose infected positive and died from all operations | Two int operands died(100, 2500) | 2600 | 1025 | FAIL |
| HL4\_L1\_1 | Number of patients tested positive and recovered | Choose infected positive and recovered from all operations | Two int operands recovered(16, 3) | 13 | 13 | PASS |
| HL4\_L1\_1 | Number of patients tested positive and recovered | Choose infected positive and recovered from all operations | Two int operands recovered( 1080, 900) | 180 | 106 | FAIL |
| HL5\_L1\_1 | Number of patients revisited the hospital and tested positive | Choose revisited and positive from all operations | Two int operands revisitedpos(23, 33) | 56 | 56 | PASS |
| HL5\_L1\_2 | Number of patients revisited the hospital and tested positive | Choose revisited and positive from all operations | Two int operands revisitedpos(1900, 990) | 1890 | 1999 | FAIL |
| HL5\_L2\_1 | Number of patients revisited the hospital and tested negative | Choose revisited and negative from all operations | Two int operands revisitedneg(80, 70) | 10 | 10 | PASS |
| HL5\_L2\_2 | Number of patients revisited the hospital and tested negative | Choose revisited and negative from from all operations | Two int operands revisitedneg(1450, 900) | 550 | 1999 | FAIL |
| HL6\_L1\_1 | Number of patients who are home quarantined | Choose infected positive and home quarantined from all operations | Two int operands homequarant(18, 70) | 88 | 88 | PASS |
| HL6\_L1\_2 | Number of patients who are home quarantined | Choose infected positive and home quarantined from all operations | Two int operands homequarant(1450, 900) | 550 | 1999 | FAIL |
| HL6\_L2\_1 | Number of patients who are hospital quarantined | Choose infected positive and hospital quarantined from all operations | Two int operands hospquarant(80, 20) | 100 | 100 | PASS |
| HL6\_L2\_2 | Number of patients who are hospital quarantined | Choose infected positive and hospital quarantined from all operations | Two int operands hospquarant(1386, 800) | 586 | 166 | FAIL |
| HL6\_L3\_1 | Number of patients who have completed 14 days isolation | Choose infected positive and completed 14 days isolation from all operations | Two int operands compisolation(8050, 50) | 8100 | 8100 | PASS |
| HL6\_L3\_2 | Number of patients who have completed 14 days isolation | Choose infected positive and completed 14 days isolation from all operations | Two int operands compisolation(1550, 800) | 750 | 1458 | FAIL |
| HL7\_L1\_1 | Number of patients who are different state and tested positive | Choose infected positive from different state from all operations | Two int operands diffstatepos(80, 100) | 180 | 180 | PASS |
| HL7\_L1\_2 | Number of patients who are different state and tested positive | Choose infected positive from different state from all operations | Two int operands diffstatepos(2650, 200) | 2850 | 2665 | FAIL |
| HL7\_L2\_1 | Number of patients who are different state and tested negative | Choose infected negative from different state from all operations | Two int operands diffstateneg(150, 100) | 50 | 50 | PASS |
| HL7\_L2\_2 | Number of patients who are different state and tested negative | Choose infected negative from different state from all operations | Two int operands diffstateneg(2900, 200) | 2700 | 2905 | FAIL |
| HL8\_L1\_1 | Number of patients who are affected from primary contact | Choose infected from primary contact from all operations | Two int operands primecon(800, 800) | 1600 | 1600 | PASS |
| HL8\_L1\_2 | Number of patients who are affected from primary contact | Choose infected from primary contact from all operations | Two int operands primecon(1780, 200) | 1980 | 3560 | FAIL |
| HL8\_L2\_1 | Number of patients who are affected from secondary contact | Choose infected from secondary contact from all operations | Two int operands seccon(900, 80) | 980 | 980 | PASS |
| HL8\_L2\_2 | Number of patients who are affected from secondary contact | Choose infected from secondary contact from all operations | Two int operands seccon(2500, 40) | 2540 | 2540 | PASS |
| HL9\_L1\_1 | Percentage of infected rate | Choose percentage of infected rate from all operations | Two int operands infectedrate(200, 200) | 100 | 100 | PASS |
| HL9\_L1\_2 | Percentage of infected rate | Choose percentage of infected rate from all operations | Two int operands infectedrate(32, 500) | 64 | 26 | FAIL |
| HL9\_L2\_1 | Percentage of death rate | Choose percentage of death rate from all operations | Two int operands deathrate(10, 20) | 50 | 50 | PASS |
| HL9\_L2\_2 | Percentage of death rate | Choose percentage of death rate from all operations | Two int operands deathrate(8, 32) | 25 | 32 | FAIL |
| HL9\_L3\_1 | Percentage of recovery rate | Choose percentage of recovery rate from all operations | Two int operands recoveryrate(30, 40) | 75 | 75 | PASS |
| HL9\_L3\_2 | Percentage of recovery rate | Choose percentage of recovery rate from all operations | Two int operands recoveryrate(400, 100) | 40 | 200 | FAIL |