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**Al-Isra University**

**Faculty of IT**

**Department of Computer Science**

**جــامـعـة الإسراء**

**كـليـة تكـنولوجيـا المعلومـات**

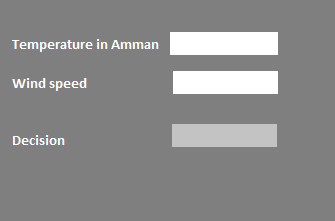
**قـســم هندسة البرمجيات**

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| --- | --- | --- |
| **Department:**  SE | **Assignment:**  **#2** | **Date:** |
| **Semester:**  First | **Year**:  2023 | **Instructor**  Dr. Dimah Fraihat |
| **Course No.:** | **Course Name:**  Software Testing | **Section:**  1 |
| **Student No.:**  **AD0039** | **Student Name:**  **فراس سمير رمضان سليم** | **Submission date:**  07/12/2023 |

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| --- | --- | --- |
| Question No. | Mark | |
| Max | Score |
| 1 | **10** |  |
| **Total Mark** | **10** |  |

**Note: 1- Copy and paste are prohibited**

Suppose we have an A software system to make a decision (Day off) based on two Inputs as shown below:



1. The Temperature in Amman input requirement is :
   1. The temperature input must be integer numbers, between -15 to 50
2. The Wind Speed input requirement is:
   1. The wind Speed input must be integer number, between 1 to 200
3. Decision Rules:

* If temp, more than 45 and or less than -10, the decision will be Day off.
* If Wind speed more than 120, the decision will be Day off.
* Else, no Day off.

Q# Write a complete set of Black Box test cases using Boundary Value Analysis and Decision Table technique for testing the system above.

**Solution:**

**………….**

Boundary Value Analysis (BVA):

Temperature Input:

Valid Input:

Test Case 1: Temperature = 0 (Valid, within the range)

Test Case 2: Temperature = 50 (Valid, upper boundary)

Test Case 3: Temperature = -15 (Valid, lower boundary)

Invalid Input:

Test Case 4: Temperature = 51 (Invalid, above the upper boundary)

Test Case 5: Temperature = -16 (Invalid, below the lower boundary)

Wind Speed Input:

Valid Input:

Test Case 6: Wind Speed = 1 (Valid, lower boundary)

Test Case 7: Wind Speed = 120 (Valid, within the range)

Test Case 8: Wind Speed = 200 (Valid, upper boundary)

Invalid Input:

Test Case 9: Wind Speed = 201 (Invalid, above the upper boundary)

Test Case 10: Wind Speed = 0 (Invalid, below the lower boundary)

| Temperature | Wind Speed | Decision |
| --- | --- | --- |
| -16 | 1 | Day off |
| 0 | 1 | No Day off |
| 50 | 1 | No Day off |
| 51 | 1 | Day off |
| -15 | 120 | Day off |
| 0 | 120 | No Day off |
| 50 | 120 | No Day off |
| -15 | 200 | Day off |
| 0 | 200 | No Day off |
| 50 | 200 | No Day off |