1. **Leave Form**

**From Date:** It should be greater than equal to Current Date (From date >= Current date)

**To Date:** It should be greater than equal to the Current date and From date (To date >= From date && To date >= From date)

| **Equivalence Class** | **FromDate** | **ToDate** | **Reason length** | **Expected Output** |
| --- | --- | --- | --- | --- |
| E1 | >= Current | >= Current &  >= FromDate | >=1 | Submit |
| E2 | >= Current | >= Current &  < FromDate | >=1 | Error |
| E3 | >= Current | < Current &  >= FromDate | >=1 | Impossible |
| E4 | >= Current | < Current &  < FromDate | >=1 | Error |
| E5 | >= Current | > Current &  > FromDate | <1 | Error |
| E6 | >= Current | >= Current &  < FromDate | <1 | Error |
| E7 | >= Current | < Current &  >= FromDate | <1 | Impossible |
| E8 | >= Current | < Current &  < FromDate | <1 | Error |
| E9 | < Current | >= Current &  > FromDate | >=1 | Impossible |
| E10 | < Current | >= Current &  < FromDate | >=1 | Impossible |
| E11 | < Current | < Current &  >= FromDate | >=1 | Error |
| E12 | < Current | < Current &  < FromDate | >=1 | Impossible |
| E13 | < Current | > Current &  > FromDate | <1 | Error |
| E14 | < Current | >= Current &  < FromDate | <1 | Impossible |
| E15 | < Current | < Current &  >= FromDate | <1 | Error |
| E16 | < Current | < Current &  < FromDate | <1 | Error |

Let’s say, Current Date: 22/04/2023

| **Test Case** | **FromDate** | **ToDate** | **Reason length** | **Expected Output** |
| --- | --- | --- | --- | --- |
| 1 | 23/04/2023 | 24/04/2023 | 10 | Submit |
| 2 | 25/04/2023 | 24/04/2023 | 5 | Error |
| 3 | 23/04/2023 | ?  < Current &  >= FromDate | 20 | Impossible |
| 4 | 29/04/2023 | 20/04/2023 | 1 | Error |
| 5 | 10/05/2023 | 15/05/2023 | 0 | Error |
| 6 | 26/04/2023 | 23/04/2023 | 0 | Error |
| 7 | 30/04/2023 | ?  < Current &  >= FromDate | 0 | Impossible |
| 8 | 22/04/2023 | 18/04/2023 | 0 | Error |
| 9 | 18/04/2023 | ?  >= Current &  > FromDate | 50 | Impossible |
| 10 | 21/04/2023 | ?  >= Current &  < FromDate | 5 | Impossible |
| 11 | 22/03/2023 | 25/03/2023 | 30 | Error |
| 12 | 22/04/2022 | ?  < Current &  < FromDate | 10 | Impossible |
| 13 | 02/04/2023 | > Current &  > FromDate | <1 | Error |
| 14 | 15/02/2023 | ?  >= Current &  < FromDate | <1 | Impossible |
| 15 | 15/04/2023 | 20/04/2023 | <1 | Error |
| 16 | 03/04/2023 | 01/04/2023 | <1 | Error |

**Boundary Value Analysis:**

From Date >= Current Date

To Date >= Current Date and To Date >= From Date

| **Test Case** | **FromDate** | **ToDate** | **Reason length** | **Expected Output** |
| --- | --- | --- | --- | --- |
| 1 | current | From+1 | 0 | Error |
| 2 | current | From-1 | 0 | Error |
| 3 | current | From | 0 | Error |
| 4 | current | current+1 | 0 | Error |
| 5 | current | current-1 | 0 | Error |
| 6 | current | current | 0 | Error |
| 7 | current+1 | From+1 | 0 | Error |
| 8 | current+1 | From-1 | 0 | Error |
| 9 | current+1 | From | 0 | Error |
| 10 | current+1 | current+1 | 0 | Error |
| 11 | current+1 | current-1 | 0 | Error |
| 12 | current+1 | current | 0 | Error |
| 13 | current-1 | From+1 | 0 | Error |
| 14 | current-1 | From-1 | 0 | Error |
| 15 | current-1 | From | 0 | Error |
| 16 | current-1 | current+1 | 0 | Error |
| 17 | current-1 | current-1 | 0 | Error |
| 18 | current-1 | current | 0 | Error |
| 19 | current | From+1 | 1 | Submit |
| 20 | current | From-1 | 1 | Error |
| 21 | current | From | 1 | Submit |
| 22 | current | current+1 | 1 | Submit |
| 23 | current | current-1 | 1 | Error |
| 24 | current | current | 1 | Submit |
| 25 | current+1 | From+1 | 1 | Submit |
| 26 | current+1 | From-1 | 1 | Error |
| 27 | current+1 | From | 1 | Submit |
| 28 | current+1 | current+1 | 1 | Submit |
| 29 | current+1 | current-1 | 1 | Error |
| 30 | current+1 | current | 1 | Error |
| 31 | current-1 | From+1 | 1 | Error |
| 32 | current-1 | From-1 | 1 | Error |
| 33 | current-1 | From | 1 | Error |
| 34 | current-1 | current+1 | 1 | Error |
| 35 | current-1 | current-1 | 1 | Error |
| 36 | current-1 | current | 1 | Error |
| 37 | current | From+1 | 2 | Submit |
| 38 | current | From-1 | 2 | Error |
| 39 | current | From | 2 | Submit |
| 40 | current | current+1 | 2 | Submit |
| 41 | current | current-1 | 2 | Error |
| 42 | current | current | 2 | Submit |
| 43 | current+1 | From+1 | 2 | Submit |
| 44 | current+1 | From-1 | 2 | Error |
| 45 | current+1 | From | 2 | Submit |
| 46 | current+1 | current+1 | 2 | Submit |
| 47 | current+1 | current-1 | 2 | Error |
| 48 | current+1 | current | 2 | Error |
| 49 | current-1 | From+1 | 2 | Error |
| 50 | current-1 | From-1 | 2 | Error |
| 51 | current-1 | From | 2 | Error |
| 52 | current-1 | current+1 | 2 | Error |
| 53 | current-1 | current-1 | 2 | Error |
| 54 | current-1 | current | 2 | Error |

**Decision Table-Based Testing:**

| C1: From Date Empty?  C2: To Date Empty?  C3: Reason length 0?  C4: FromDate >= Current Date  C5: ToDate >= Current Date  C6: ToDate >= FromDate | Yes | No | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| - | Yes | No | | | | |
| - | Yes | No | | | |
|  | - | No | Yes | | |
| No | Yes | |
| No | Yes |
| A1: Successfully Submit  A2: Enter Valid Details |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |