**Requirements**

1 -Input Validation

The input field for “How many dates to generate?” should only accept positive integers.

The input field should not accept negative numbers or decimal values.

The start date and end date fields should accept valid date and time formats.

2 - Date Generation

The app should generate the specified number of random dates within the given range.

The generated dates should be unique and within the specified range.

The app should handle leap years correctly.

The app should generate the last day of the month correctly.

3 - Date Format

The app should support multiple date formats (for example: MM-DD-YYYY, YY-MM-DD).

The custom date format should be configurable and correctly applied.

The app should handle custom date formats like “YYYY/MM/DD” correctly.

4 - Error Handling

The app should display appropriate error messages for invalid inputs.

The app should handle edge cases gracefully (for example: invalid date ranges, zero dates to generate).

**Test Plan for Random Date Generator Web App**

1. Introduction:

This test plan outlines the strategy, scope, objectives, and approach for testing the random date generator web application. The goal is to ensure the application functions correctly, handles inputs appropriately, and generates valid dates in the specified formats.

2. Objective:

To ensure the reliability, accuracy, and usability of the random date generator web application by validating its input handling, date generation logic, date format customization, and error handling mechanisms. The goal is to confirm that the application generates the correct number of unique, valid dates within specified ranges and formats, while appropriately handling invalid inputs and edge cases.

3. Scope

* Functional testing of input fields, date generation logic, and date format customization.
* Boundary value analysis and equivalence partitioning for input validation.
* Error handling and edge case testing.

4. Test Items

* Input field for “How many dates to generate?”
* Start date and end date fields.
* Date output format options (predefined and custom).
* Generated dates.

5. Test Approach

* Manual testing using predefined test cases.
* Automated testing using Selenium, Junit, Cucumber and BDD approach regression testing.

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| --- | --- | --- | --- | --- |
| **Feature Under Test** | **Equivalence Class** | **Boundary Values** | **Test Data for Equivalence Class** | **Test Data for Boundary Values** |
| Number of Dates to Generate | Valid positive integers | Minimum and maximum valid integers | 1, 10, 100 | 1, 1000 |
|  | Invalid inputs | Just below and above valid range | -5, 10.5, “abs” | 0, 1001 |
| Date Range | Valid date ranges | Start and end dates at the edges | “2020-01-01” to “2099-12-31” | “2020-01-01”, “2099-12-31” |
|  | Invalid date ranges | Just before and after valid date range | “2099-12-31” to “2020-01-01” | “2019-12-31”, “2100-01-01” |
| Date Output Format | Predefined formats | Not applicable | “MM-DD-YYYY”, “YY-MM-DD” | Not applicable |
|  | Custom date formats | Valid and invalid custom formats | “YYYY/MM/DD”, YYYY/MM/DDDD” | “YYYY/MM/DD”, “YYYY/MM/DD/HH” |
| Generated Dates | Dates within the specified range | Start and end dates of the range | Any date between “2020-01-01” | “2020-01-01”, “2099-12-31” |
|  | Leap year dates | Just before and after leap day | “2020-02-29” | “2020-02-28”, “2020-03-01” |
|  | Invalid Dates | Just before and after valid date range | “2020-01-01” to “2020-04-31” | “2020-01-01” to “2020-04-31” |
|  | Last day of the month | Just before and after the last day | “2020-01-31”, “2020-02-29” | “2020-01-30”, “2020-02-28”, “2020-03-30” |
| should not accept non-Latin characters |  |  | カタ |  |
| should not accept special characters |  |  | %$@ | YYYY/MM/DD$ |