Industry Partner Database - Test Plan

Industry Partner Database is a sponsored project by Dr. Cindi Mason.

As a team, we plan to get our Second Semester Work Statement as well as formal document signed by Dr. Cindi Mason as approval for our project.

**Test Plan for Deliverable Features**

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| **Testing Requirements** | **Descriptions** |
| **Front End Testing**  Assigned to **Shiva Karki**  Assigned to **Priyanka Limbu** | The team tests the Front-End aspect of the product to ensure that it meets the following requirements.  **Cross-Browser Compatibility.**  The product contains web pages. Therefore, it is very important to ensure that all the webpages are compatible and work on various major web browsers like Apple Safari and Google Chrome.  The team should ensure that all the features of the software product work across major operating systems (macOS and Windows).  **Mobile Responsiveness.**  The webpages of the product should compatible across a wide range of devices including mobile phones (small screens) and large screens (desktop) |
| **Back End Testing**  Assigned to **Subash Acharya**  Assigned to **Sailesh Rajanala** | The team will utilize the Back-End aspect of the webpage to test the following features.  **Strict Form Validation and Sanitization.**  The web form should be reliable in detecting invalid information. The web form should utilize strict form fields validation to ensure that the user submits viable and valid information to the database.  For example, the web form should not accept alphanumeric entries for the user's first or last name.  We test this feature by creating an algorithm that populates the form with random information and check if the form is submitted or not.  **Multiple Time zone Support for Database.**  The database should be able to store all the entries in a unified time zone. Therefore, to achieve this, the database should be able to convert time zones.  We test this feature by creating a query algorithm that populates the database with random entries from random time zones and checks if the time zone alignment is preserved. |

**Checklist of features to be demonstrated for successful completion of the project**

* Cross browser compatibility
* Multiple time zone support
* Mobile Responsiveness
* Search, Export, Help features
* Training manual for programming
* Client and Server-Side form validation
* Duplicate entry Detection

**Testing Plan for Front End**

The team will perform manual testing by submitting multiple entries using the form. This manual testing is to find errors or bugs with the functionality of the form and to ensure expected working of client-side testing or client-side form validation.

The team will also manually test the webpages for cross-browser compatibility on various browsers using in built “Web Inspector” feature of Google Chrome and Safari to test mobile compatibility of same webpage across multiple mobile devices. This ensures Mobile Responsiveness.

**Testing Plan for Back End**

The team will perform backend testing for the Database by using a C++ program that uses File IO or the <fstream> library as well as random number generation or the <random> to generate multiple lines of MySQL code that contains syntax of insertion, of entries in the database. Using this the team will verify the working of duplicate records or duplicate entries detection feature of the database.

The team will manually test the database by submitting the form from various time zones around the world by just simply changing the time zone setting in their local computers to ensure the successful working of the feature multiple timezone support of the database.

**Acceptance Criteria**

The Acceptance Criteria for the final product will be to ensure that the product meets the following requirements.

* Product UI/UX is reliable, simple, and easy to use.
* The web form should utilize Strict Form Validation.
* The product should be able to perform the requested functions like **Filtering, Searching, and Exporting** Data.
* The Product should meet the Regulatory Standards like FERPA and ITS regulations .

Moreover, the final product needs to be approved by the Project Sponsor and other major stakeholders of the project and should also be accepted by the university.