**Training Registration**

**Unit Test cases:**

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| Test Id | Module | Description | Expected Result |
|  | UI | Verify that end user is able to open the Training Registration web application using its Url.  If the application executed on local machine, then browse <http://localhost:4200/> link.  If the application deployed on a server OR configured on local IIS, then browse the link derived from the web application setup. | TrainingUI web site must be open on browser showing “Training Registration” header and navigation links for View/Add/Edit/Delete training pages. |
|  | UI | Verify user is able to navigate to “Add Training” page on click on “Add Training link” | User must be shown with a page to add new Training record |
|  | UI | Verify user is able to enter any valid text as Training name in Training name text box | User must be able to enter any text as Training name |
|  | UI | Verify user is able to enter up to 100 characters of text as Training name | User must be able to enter up to 100 characters of training name |
|  | UI | Verify “Training name is required” error message is shown on bottom of Training name field if is not entered | “Training name is required” message must be shown when user focus on field and left without entering |
|  | UI | Verify user is not allowed to specify only spaces or special characters without digits or alphabets | User must not be allowed to enter only spaces or special characters |
|  | UI | Verify valid date is entered in Start Date field | Start date must be valid in format of mm/dd/yyyy |
|  | UI | Verify “Start Date is required” message shown if user doesn’t enter date on its focus | “Start Date is required” message must be shown if user doesn’t enter date on its focus |
|  | UI | Verify “Start Date” cannot be past date and a message shown to the user on the same. | Start date must be today or later |
|  | UI | Verify valid date is entered in End Date field | End date must be valid in format of mm/dd/yyyy |
|  | UI | Verify “End Date is required” message shown if user doesn’t enter date on its focus | “End Date is required” message must be shown if user doesn’t enter date on its focus |
|  | UI | Verify “End Date” cannot be past date and a message shown to the user on the same. | End date must be today or later |
|  | UI | Verify “End Date” cannot be earlier than “Start Date” and a message shown to the user on the same. | End date must be greater than or equal to Start date |
|  | UI | Verify Confirm button is enable only when Training name, Start Date and End Date fields are populated. | Confirm button must be enabled only valid Training name, start and end dates. |
|  | UI | Verify “View Training” link opens View page and a message shown on it | View Training link must open a message showing page under construction message |
|  | UI | Verify “Edit Training” link opens Edit page and a message shown on it | Edit Training link must open a message showing page under construction message |
|  | UI | Verify “Delete Training” link opens Delete page and a message shown on it | Delete Training link must open a message showing page under construction message |
|  | Service | Verify Web API is accessible from browser using the controller/action url  <http://localhost:58426/api/Training/SaveTraining> | Valid message must be shown on UI saying the existence of SaveTraining action |
|  | Service | Verify Web API – Save Training action is a Post http verb | Save training action must work for POST Http attribute and fail for other attributes |
|  | Service | Verify Save Training action accepts Training name, start date and end date as body of the request | Save Training action must accept Training name, Start date and End date as query parameters or request body |
|  | Service | Verify Save Training action returns 200 OK status code on successful action execution | Save Training action must return 200 Http Status code on successful execution |
|  | Service | Verify Save Training action returns a message saying, “Training has been confirmed for the duration of N days. Training Id is M.” where N is integer of end date – start date + 1 and M is training identifier auto generated. This must be on successful execution of action. | Save Training action must return valid message |
|  | Service | Verify Save training action returns 500 Internal server error on failing action execution | Save Training action must return 500 Http Status code on exception |
|  | Service | Verify Save training action returns exception message on failing action execution | Save Training action must return valid error message |
|  | Service | Verify Save Training action confirms the training by default | Save Training action must confirm the training |
|  | Service | Verify Save Training action inserts record in Training database table when Training name and start date combination doesn’t exist earlier | Record must be in Training table on unique combination of Training name and Start Date |
|  | Service | Verify Save Training action throws exception when Training name and start date of training entered is already exists in Training table | Database Exception message must be seen when duplicate Training name and Start date are used. |

Assumption: Anonymous access to Service and UI. No test cases mentioned on security in UI or integration.

**Integration test cases:**

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| Test Id | Test case | Expected Result |
|  | Verify valid error message logged and friendly error message shown on UI and when failed to interact with Web API. Here, Web API is down. | Valid error message must be logged when Web API is down and friendly message is shown on UI |
|  | Verify multiple (configured) attempts been made to interact with Web API if in case down intermittently. | Logger or http traffic must show multiple attempts made to connect to Web API |
|  | Verify valid error message logged and friendly error message shown when failed to interact with web API. Here, Web API action url was changed. | Valid error message must be logged when Web API is url changed and friendly message is shown on UI |
|  | Verify training information saved to database and valid message shown on UI when all interfaces and data is up and correct. | Record must be inserted into Trainings database and show the message on UI |
|  | Verify valid error message is logged and friendly error is shown when database server is down | Valid error message must be logged when Database server is down and friendly message is shown on UI |
|  | Verify valid error message is logged and friendly error is shown when database connection string is incorrect | Valid error message must be logged when DB connection is incorrect and friendly message is shown on UI |
|  | Verify valid error message is logged and friendly error message is shown when database table doesn’t exist | Valid error message must be logged when Database Table doesn’t exist and friendly message is shown on UI |
|  | Verify valid error message is logged and shown when exception is thrown from database on inserting training information | Valid error message must be logged and shown when duplicate data entry is made |