SOFTWARE ENGINEERING
CS 301

Testing Document

Web Application for NIC

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Requirements

1. Login Page for Employees
   1.1. Username
   1.2. Password

2. Registration Page
   2.1. Full Name
   2.2. Designation
   2.3. Employee Code
   2.4. Mobile Number
   2.5. Email Address
   2.6. Division/Group
   2.7. Location
   2.8. Department/Ministry
   2.9. Username
   2.10.   Password and Confirm password
   2.11.   User Category
   2.12.   Acceptance of Terms and Conditions
   2.13.   Register button

3. Dashboard for Employees
   3.1. Add device
   3.2. Modify device
   3.3. Delete device request

4. Login page for Administrator
   4.1. Username
   4.2. Password

5. Dashboard for Administrator
   5.1. Approve / Reject requests
   5.2. Remove users from network
   5.3. Search for devices/users in database

Test Cases for the Requirements

1. **Test case for Requirement ID 1**

   1.1. Test cases for Requirement ID 1.1
   1.1.1. If wrong username is entered, it must throw error : **Test passed**
   1.1.2. If no username is entered, prompt user to enter it : **Test failed**

   1.2. Test cases for Requirement ID 1.2
   1.2.1. If wrong password is entered, it must throw error : **Test passed**
   1.2.2. If no password is entered, prompt user to enter it : **Test failed**

   1.3. SQL injection prevention : **Test passed**
   1.4. If user does not remember password, proceed to change it : **Test failed**

2. **Test cases for Requirement ID 2**
   2.1. Test case for Requirement ID 2.1
   2.1.1. If name is not entered, prompt the user to fill it : **Test passed**

   2.2. Test case for Requirement ID 2.2
   2.2.1. If designation is not entered, prompt the user to fill it : **Test passed**

   2.3. Test case for Requirement ID 2.3
   2.3.1. If employee code is not entered, prompt the user to fill it : **Test passed**

   2.4. Test cases for Requirement ID 2.4
   2.4.1. If wrong mobile number is entered, prompt the user to fill it correctly : **Test passed**
   2.4.2. If no mobile number is entered, prompt the user to fill it : **Test passed**

   2.5. Test cases for Requirement ID 2.5
   2.5.1. If email is not entered, prompt the user to fill it : **Test passed**
   2.5.2. If email is entered in a wrong way, prompt the user to fill it correctly : **Test passed**

   2.6. Test case for Requirement ID 2.6
   2.6.1. If division/group is not entered, prompt the user to fill it : **Test passed**

2.7. Test case for Requirement ID 2.7
2.7.1. If location is not entered, prompt the user to fill it : **Test passed**

2.8. Test case for Requirement ID 2.8
2.8.1. If department / ministry is not entered, prompt the user to fill it : **Test passed**

2.9. Test case for Requirement ID 2.9
2.9.1. If username is not entered, prompt the user to fill it : **Test passed**

2.10. Test cases for Requirement ID 2.10
2.10.1. If password is not entered, prompt the user to fill it : **Test passed**

2.10.2. If confirm password is not entered, prompt the user to fill it : **Test passed**

2.10.3. If password and confirm password do not match, prompt the user that passwords do not match : **Test passed**

2.11. Test case for Requirement ID 2.11
2.11.1. If user category is not entered, prompt the user to fill it : **Test failed**

2.12. Test case for Requirement ID 2.12
2.12.1. If terms and condition are not accepted, do not allow user to register their details by keeping the Register button disabled : **Test passed**

2.13. Test case for Requirement ID 2.13
2.13.1. If database crashes, it must prompt user an error and retain the data entered by user : **Test failed**

3. Test case for Requirement ID 3

3.1. Test cases for Requirement ID 3.1
    3.1.1. If user enters MAC address in a wrong format, prompt the user to enter in the proper format : **Test passed**

    3.1.2. If user tries to add more devices than the limit, disable the add button : **Test passed**

    3.1.3. If user tries to submit and then the database crashes, the details entered by user must be retained : **Test failed**

3.2. Test case for Requirement ID 3.2
    3.2.1. If user enters MAC address in a wrong format, prompt the user to enter in the proper format : **Test passed**

    3.2.2. If user tries to submit and then the database crashes, the details entered by user must be retained : **Test failed**

    3.2.3. If user enters a device name which is same as another device registered against his/her account, then system prompts that duplicate names cannot be entered : **Test passed**

3.3. Test case for Requirement ID 3.3
    3.3.1. If user by mistake deletes a device request, then the system must ask for a confirmation before deleting the device : **Test failed**

4. Test case for Requirement ID 4
4.1. Test cases for Requirement ID 4.1
    4.1.1. If wrong username is entered, it must throw error : **Test passed**

    4.1.2. If no username is entered, prompt user to enter it : **Test failed**

4.2. Test cases for Requirement ID 4.2
    4.2.1. If wrong password is entered, it must throw error : **Test passed**

    4.2.2. If no password is entered, prompt user to enter it : **Test failed**

4.3. SQL injection prevention : **Test passed**

4.4. If user does not remember password, proceed to change it : **Test failed**

5. Test case for Requirement ID 5

   5.1. Test cases for Requirement ID 5.1

      5.1.1. If admin is approving and then database crashes, then request state must not change and request must be retained in the original form : **Test passed**

      5.1.2. While approving device join request, check time entered by admin entered is valid : **Test failed**

      5.1.3. While approving device join request, modify any approval detail : **Test failed**

   5.2. Test cases for Requirement ID 5.2

      5.2.1. While removing device, prompt a confirmation dialog box : **Test failed**

      5.2.2. While removing device, if database crashes, the user details must stay in the database : **Test passed**

   5.3. Test cases for Requirement ID 5.3

      5.3.1. If any non-registered devices are being searched for, show no results : **Test passed**

Test plans compiled

S.no	Module	Req. ID	Input	Expected output	Actual output	Status
1	Employee Login	1.1.1	Wrong username	Invalid credentials	Invalid credentials	**Passed**
		1.1.2	No username	No username entered	No prompt	**Failed**
		1.2.1	Wrong password	Invalid credentials	Invalid credentials	**Passed**
		1.2.2	No password	No password entered	No prompt	**Failed**
		1.3	Inject SQL into the URL	No change in URL	No change in URL	**Passed**
		1.4	Forgot password	Ask the user to enter new password	No provision	**Failed**

S.no	Module	Req. ID	Input	Expected output	Actual output	Status
2	Employee Registration	2.1.1	No name entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.2.1	No designation value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.3.1	No employee code value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.4.1	Wrong mobile number value entered	Prompt the user to enter it correctly	Prompt the user to enter it correctly	**Passed**
		2.4.2	No mobile phone value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.5.1	Wrong email ID value entered	Prompt the user to enter it correctly	Prompt the user to enter it correctly	**Passed**
		2.5.2	No email ID value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.6.1	No division/group value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.7.1	No location value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.8.1	No department / ministry value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.9.1	No username value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.10.1	No password value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.10.2	No confirm password value entered	Prompt user to enter	Prompt user to enter	**Passed**
		2.10.3	If password != confirm password value	Prompt an error that passwords do not match	Prompt an error that passwords do not match	**Passed**
		2.11.1	If user category is not entered	Prompt the user to fill it	No prompt	**Failed**
		2.12.1	If terms & conditions not accepted	Keep Register button disabled	Keeps the Register button disabled	**Passed**
		2.13.1	If database crashes while registration process	Retain the text field values entered by the user & show user "Database error" prompt	Text fields are cleared and an error code is displayed	**Failed**

S.no	Module	Req. ID	Input	Expected output	Actual output	Status
3	Employee Dashboard	3.1.1	User enters MAC address in wrong format	Prompt user to enter it correctly	Prompt user to enter it correctly	Passed
		3.1.2	User tries to add more device than limit	Disable Add button	Disable Add button	Passed
		3.1.3	User is submitting device details and database crashes	Details must be retained in the text fields	No data retained. User has to enter details again	Failed
		3.2.1	User enters MAC address in wrong format	Prompt user to enter it correctly	Prompt user to enter it correctly	Passed
		3.2.2	User is submitting device details and database crashes	Details must be retained in the text fields	No data retained. User has to enter details again	Failed
		3.2.3	If user enters a device MAC which already exists in DB	Prompt that MAC already exists in the system	Prompt that MAC already exists in the system	Passed
		3.3.1	User deletes a device joining request by mistake	Prompt a confirmation before removal of request	No prompt as such	Failed

S.no	Module	Req. ID	Input	Expected output	Actual output	Status
4	Administrator Login page	4.1.1	Wrong username	Invalid credentials	Invalid credentials	**Passed**
		4.1.2	No username	No username entered	No prompt	**Failed**
		4.2.1	Wrong password	Invalid credentials	Invalid credentials	**Passed**
		4.2.2	No password	No password entered	No prompt	**Failed**
		4.3	Inject SQL into the URL	No change in URL	No change in URL	**Passed**
		4.4	Forgot password	Ask the user to enter new password	No provision	**Failed**

S.no	Module	Req. ID	Input	Expected output	Actual output	Status
5	Administrator Dashboard	5.1.1	Database crash while admin is approving devices	Request must be retained in the DB as it is	Request must be retained in the DB as it is	**Passed**
		5.1.2	Enter invalid time value while approving device join request	Prompt that invalid time value has been entered	No output	**Failed**
		5.1.3	Modify device details while approving device join request	Details must be editable	Details cannot be edited	**Failed**
		5.2.1	Removing devices from network	Prompt a confirmation before deletion	No prompt as such	**Failed**
		5.2.2	Database crashes while removing device from database	User details must remain in the DB	User details remain in DB	**Passed**
		5.3.1	Search for any non-registered device	No results displayed	No results displayed	**Passed**