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# Revision

|  |  |  |
| --- | --- | --- |
| Date | Name | Description |
|  | B1C2V3 | initial |
| 2023-06-22 | B1C2V3 | modify test case which is incorrect written |

# Sign-Up

## Test Case 1: Successful Registration

|  |  |
| --- | --- |
| Test Case ID | TC001 |
| Title | Successful Registration |
| Pre-conditions | * The Sign-Up form is accessible and all required fields are provided. |
| Sequence | * Enter a unique email address. * Click “Duplicate Check” Button * Enter a valid password. * Confirm the password by re-typing it. * Enter a valid first name. * Enter a valid last name. |
| Input Values | * Email Address: [john.doe@example.com](mailto:john.doe@example.com) * Password: Abcd1234!@#$ * Confirm Password: Abcd1234!@#$ * First Name: john * Last Name: doe |
| Expected Result | * User account is created successfully. * Verification email is sent to the provided email address. * Success message displayed. |
| Post-conditions | * The user's account is registered and pending verification. |

## Test Case 2: Invalid Email Address

|  |  |
| --- | --- |
| Test Case ID | TC002 |
| Title | Invalid Email Address |
| Pre-conditions | * The Sign-Up form is accessible. |
| Sequence | * Enter an invalid email address format. * Click “Duplicate Check” |
| Input Values | * Email Address: [john.doe@example.com](mailto:john.doe@example.com) |
| Expected Result | * Error message displayed indicating invalid email address format. |
| Post-conditions | * The system show to correct the email address format. |

## Test Case 3: Existing Email Address

|  |  |
| --- | --- |
| Test Case ID | TC003 |
| Title | Existing Email Address |
| Pre-conditions | * The Sign-Up form is accessible. |
| Sequence | * Enter an email address that is already registered in the system. |
| Input Values | * Email Address: [john.doe@example.com](mailto:john.doe@example.com) |
| Expected Result | * Error message displayed indicating that the email address is already in use. |
| Post-conditions | * The user is prompted to provide a different email address. |

## Test Case 4: Weak Password

|  |  |
| --- | --- |
| Test Case ID | TC004 |
| Title | Weak Password |
| Pre-conditions | * The Sign-Up form is accessible. |
| Sequence | * Enter a unique email address. * Enter a weak password that does not meet the complexity requirements. * Confirm the password by re-typing it. * Enter a first name. * Enter a last name. |
| Input Values | * Email Address: [john.doe@example.com](mailto:john.doe@example.com) * Password: password123 * Confirm Password: password123 * First Name: John * Last Name: Doe |
| Expected Result | * Error message displayed indicating password complexity requirements not met. |
| Post-conditions | * The user is prompted to provide a stronger password. |

## Test Case 5: Password Mismatch

|  |  |
| --- | --- |
| Test Case ID | TC005 |
| Title | Password Mismatch |
| Pre-conditions | * The Sign-Up form is accessible. |
| Sequence | * Enter a unique email address. * Enter a valid password. * Confirm the password by re-typing it with a different value. * Enter a first name. * Enter a last name. |
| Input Values | * Email Address: john.doe@example.com * Password: Abcd1234!@#$ * Confirm Password: DifferentPassword123 * First Name: John * Last Name: Doe |
| Expected Result | * Error message displayed indicating that the passwords do not match. |
| Post-conditions | * The user is prompted to re-enter the password correctly. |

## ~~Test Case 6: Expired OTP~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC006~~ |
| ~~Title~~ | ~~Expired OTP~~ |
| ~~Pre-conditions~~ | * ~~The registration form is accessible.~~ |
| ~~Sequence~~ | * ~~Enter a first name.~~ * ~~Enter a last name.~~ * ~~Enter a unique email address.~~ * ~~Enter an expired OTP.~~ * ~~Enter a valid password.~~ * ~~Confirm the password by re-typing it.~~ |
| ~~Input Values~~ | * ~~First Name: John~~ * ~~Last Name: Doe~~ * ~~Email Address: john.doe@example.com~~ * ~~OTP: 123456 (Expired OTP)~~ * ~~Password: Abc123!@#~~ * ~~Confirm Password: Abc123!@#~~ |
| ~~Expected Result~~ | * ~~Error message displayed indicating that the OTP has expired.~~ |
| ~~Post-conditions~~ | * ~~The user is prompted to request a new OTP.~~ |

## ~~Test Case 7: Invalid OTP~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC007~~ |
| ~~Title~~ | ~~Invalid OTP~~ |
| ~~Pre-conditions~~ | * ~~The registration form is accessible.~~ |
| ~~Sequence~~ | * ~~Enter a first name.~~ * ~~Enter a last name.~~ * ~~Enter a unique email address.~~ * ~~Enter an invalid OTP.~~ * ~~Enter a valid password.~~ * ~~Confirm the password by re-typing it.~~ |
| ~~Input Values~~ | * ~~First Name: John~~ * ~~Last Name: Doe~~ * ~~Email Address: john.doe@example.com~~ * ~~OTP: 654321 (Incorrect OTP)~~ * ~~Password: Abc123!@#~~ * ~~Confirm Password: Abc123!@#~~ |
| ~~Expected Result~~ | * ~~Error message displayed indicating that the OTP is invalid.~~ |
| ~~Post-conditions~~ | * ~~The user is prompted to enter the correct OTP.~~ |

## Test Case 8: Error Logging

|  |  |
| --- | --- |
| Test Case ID | TC008 |
| Title | Successful Verification |
| Pre-conditions | * The Sign-Up process encounters an internal error. |
| Sequence | * Submit the Sign-Up form, triggering an internal error. |
| Input Values | * N/A |
| Expected Result | * Error is logged. * Error notification is generated for further investigation. |
| Post-conditions | * Error is flagged for investigation and resolution. |

## ~~Test Case 9: CAPTCHA Verification~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC009~~ |
| ~~Title~~ | ~~CAPTCHA Verification~~ |
| ~~Pre-conditions~~ | * ~~The registration form with CAPTCHA is accessible.~~ |
| ~~Sequence~~ | * ~~Attempt to bypass CAPTCHA verification.~~ |
| ~~Input Values~~ | * ~~N/A~~ |
| ~~Expected Result~~ | * ~~CAPTCHA verification prevents automated registration and displays an error message.~~ |
| ~~Post-conditions~~ | * ~~Automated registrations are prevented by the CAPTCHA mechanism.~~ |

# Sign-In

## Test Case 10: Successful Sign-In

|  |  |
| --- | --- |
| Test Case ID | TC010 |
| Title | Successful Sign-In |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter a valid email address. * Enter a valid password. * Click on the “Create OTP” button. * Enter a OTP passed via email |
| Input Values | * Email Address: john.doe@example.com * Password: Abcd1234!@#$ |
| Expected Result | * User is successfully logged in |
| Post-conditions | * The user is logged in and has access to their account. |

## Test Case 11: Invalid Email Address

|  |  |
| --- | --- |
| Test Case ID | TC011 |
| Title | Invalid Email Address |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter an invalid email address format. * Enter a valid password. * Click on the "Create OTP" button. |
| Input Values | * Email Address: invalidemail * Password: Abcd1234!@#$ |
| Expected Result | * Error message displayed indicating an invalid email address format. |
| Post-conditions | * The user is prompted to correct the email address format. |

## Test Case 12: Incorrect Password

|  |  |
| --- | --- |
| Test Case ID | TC012 |
| Title | Incorrect Password |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter a valid email address. * Enter an incorrect password. * Click on the "Create OTP" button. |
| Input Values | * Email Address: john.doe@example.com * Password: IncorrectPassword123 |
| Expected Result | * Error message displayed indicating an incorrect password. |
| Post-conditions | * The user is prompted to enter the correct password. |

## Test Case 13: Request OTP

|  |  |
| --- | --- |
| Test Case ID | TC013 |
| Title | Request OTP |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter a valid email address. * Enter a valid password. * Click on the "Create OTP" button. |
| Input Values | * Email Address: john.doe@example.com * Password: Abcd1234!@#$ |
| Expected Result | * User is prompted to enter the OTP received via email. * Start OTP time count down during a minute |
| Post-conditions | * The user is prompted to enter the OTP for verification. |

## Test Case 14: Invalid OTP

|  |  |
| --- | --- |
| Test Case ID | TC014 |
| Title | Invalid OTP |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter a valid email address. * Enter a valid password. * Enter an invalid OTP. * Click on the "Verify OTP" button. |
| Input Values | * Email Address: john.doe@example.com * Password: Abcd1234!@#$ * OTP: InvalidOTP |
| Expected Result | * Error message displayed indicating an invalid OTP. |
| Post-conditions | * The user is prompted to enter the correct OTP. |

## Test Case 15: Successful OTP Verification

|  |  |
| --- | --- |
| Test Case ID | TC015 |
| Title | Successful OTP Verification |
| Pre-conditions | * The Sign-In form is accessible. |
| Sequence | * Enter a valid email address. * Enter a valid password. * Enter the correct OTP received via email. * Click on the "Confirm" button. |
| Input Values | * Email Address: john.doe@example.com * Password: Abcd1234!@#$ * OTP: ValidOTP |
| Expected Result | * User is successfully verified and logged in. |
| Post-conditions | * The user is logged in and has access to their account. |

## Test Case 16: Error Logging

|  |  |
| --- | --- |
| Test Case ID | TC016 |
| Title | Error Logging |
| Pre-conditions | * The Sign-In process encounters an internal error. |
| Sequence | * Submit the Sign-In form, triggering an internal error. |
| Input Values | * N/A |
| Expected Result | * Error is logged. * Error notification is generated for further investigation. |
| Post-conditions | * Error is flagged for investigation and resolution. |

# User Email Update

## Test Case 17: Successful Email Address Update

|  |  |
| --- | --- |
| Test Case ID | TC017 |
| Title | Successful Email Address Update |
| Pre-conditions | * The user is logged in as “[john.doe@example.com](mailto:john.doe@example.com)” and has access to the email address update functionality. |
| Sequence | * Click on the "Update" button * Enter the current password for authentication. * Enter a valid new email address. * Click on the "Duplicate Check" button. * Click on the "Generate OTP" button. * Retrieve the OTP sent to the new email address. * Enter the OTP within the specified timeframe. * Click on the "Confirm" button. |
| Input Values | * Current Password: Abc123!@# * New Email Address: newemail@example.com * OTP: ValidOTP |
| Expected Result | * User's email address is successfully updated to the new email address. * User receives a notification to their existing email address confirming the email address change. |
| Post-conditions | * The user's email address is updated in the system and they can now log in using the new email address. |

## Test Case 18: Incorrect Password

|  |  |
| --- | --- |
| Test Case ID | TC018 |
| Title | Incorrect Password |
| Pre-conditions | * The user is logged in as “[john.doe@example.com](mailto:john.doe@example.com)” and has access to the email address update functionality. |
| Sequence | * Click on the "Update" option. * Enter an incorrect password for authentication. * Click on the "Submit" button. |
| Input Values | * Current Password: IncorrectPassword123 * New Email Address: newemail@example.com |
| Expected Result | * Error message displayed indicating an incorrect password. |
| Post-conditions | * The user is prompted to enter the correct password for authentication. |

## Test Case 19: Invalid Email Address Format

|  |  |
| --- | --- |
| Test Case ID | TC019 |
| Title | Invalid Email Address Format |
| Pre-conditions | * The user is logged in as “[john.doe@example.com](mailto:john.doe@example.com)” and has access to the email address update functionality. |
| Sequence | * Click on the "Update" option. * Enter the current password for authentication. * Enter an invalid email address format. * Click on the "Duplicate Check" button. |
| Input Values | * Current Password: CurrentPassword123 * New Email Address: invalidemail |
| Expected Result | * Error message displayed indicating an invalid email address format. |
| Post-conditions | * The user is prompted to enter a valid email address format. |

## Test Case 20: OTP Expiry

|  |  |
| --- | --- |
| Test Case ID | TC020 |
| Title | OTP Expiry |
| Pre-conditions | * The user is logged in as “[john.doe@example.com](mailto:john.doe@example.com)” and has access to the email address update functionality. |
| Sequence | * Click on the "Update" button. * Enter the current password for authentication. * Enter a valid new email address. * Click on the "Generate OTP" button. * Retrieve the OTP sent to the new email address. * Wait until the OTP has expired. * Enter the expired OTP. * Click on the "Verify OTP" button. |
| Input Values | * Current Password: Abc123!@# * New Email Address: newemail@example.com * OTP: ExpiredOTP |
| Expected Result | * Error message displayed indicating an expired OTP. |
| Post-conditions | * The user is prompted to request a new OTP. |

## Test Case 21: Error Logging

|  |  |
| --- | --- |
| Test Case ID | TC021 |
| Title | Error Logging |
| Pre-conditions | * The email address update process encounters an internal error. |
| Sequence | * Click on the "Update" button. * Enter the current password for authentication. * Enter a valid new email address. * Click on the "Generate OTP" button, triggering an internal error. |
| Input Values | * Current Password: Abc123!@# * New Email Address: newemail@example.com |
| Expected Result | * Error is logged. * Error notification is generated for further investigation. |
| Post-conditions | * Error is flagged for investigation and resolution. |

# Periodic Password Reset

## Test Case 22: Password Reset Prompt

|  |  |
| --- | --- |
| Test Case ID | TC022 |
| Title | Password Reset Prompt |
| Pre-conditions | * The user is logged in and the password reset condition is met (exceeds 30 days since last password reset). |
| Sequence | * User logs in. * System compares the current date with the user's last password reset date. * Password reset condition is met. * System prompts the user to reset their password upon next Sign-In. |
| Input Values | * N/A |
| Expected Result | * User sees a notification or message indicating that their password needs to be reset. * User is not allowed to access the system until they reset their password. |
| Post-conditions | * User is prompted to reset their password before accessing the system. |

## Test Case 23: Password Reset Notification

|  |  |
| --- | --- |
| Test Case ID | TC023 |
| Title | Password Reset Notification |
| Pre-conditions | * The user is logged in and the password reset condition is not met. |
| Sequence | * User logs in. * System compares the current date with the user's last password reset date. * Password reset condition is not met. * System displays a notification to the user indicating when their password is due for a reset. |
| Input Values | * N/A |
| Expected Result | * User sees a notification or message indicating when their password is due for a reset. * User is allowed to continue using the system without any immediate password reset requirement. |
| Post-conditions | * User is notified about when their password is due for a reset. |

## Test Case 24: Successful Password Reset

|  |  |
| --- | --- |
| Test Case ID | TC024 |
| Title | Successful Password Reset |
| Pre-conditions | * The user has requested a password reset and successfully authenticated. |
| Sequence | * User initiates the password reset process. * User enters the new password and confirms it. * User submits the new password. * System validates and confirms the new password. * System updates the user's password in the database. * System logs the date and time of the password reset. * System sends a notification email to the user confirming the password change. |
| Input Values | * New Password: NewPassword123 * Confirm Password: NewPassword123 |
| Expected Result | * User's password is successfully updated in the system's database. * User receives a notification email confirming the password change. |
| Post-conditions | * User can log in using the new password and has an updated password reset date. |

## Test Case 25: Password Reset Validation Failure

|  |  |
| --- | --- |
| Test Case ID | TC025 |
| Title | Password Reset Validation Failure |
| Pre-conditions | * The user has requested a password reset and entered an invalid or non-matching password. |
| Sequence | * User initiates the password reset process. * User enters an invalid or non-matching new password and confirms it. * User submits the new password. |
| Input Values | * New Password: InvalidPassword123 * Confirm Password: InvalidPassword456 |
| Expected Result | * System displays an error message indicating that the new password and confirm password do not match or do not meet the validation criteria. * User is prompted to enter a valid and matching password. |
| Post-conditions | * User is prompted to enter a valid and matching password for the password reset. |

## Test Case 26: Password Reset Email Confirmation

|  |  |
| --- | --- |
| Test Case ID | TC026 |
| Title | Password Reset Email Confirmation |
| Pre-conditions | * The user has successfully completed the password reset process. |
| Sequence | * User successfully resets their password. * System sends a notification email to the user confirming the password change. |
| Input Values | * N/A |
| Expected Result | * User receives a notification email confirming the password change. |
| Post-conditions | * User receives an email confirming the password change. |

## Test Case 27: Contact Support During Password Reset

|  |  |
| --- | --- |
| Test Case ID | TC027 |
| Title | Contact Support During Password Reset |
| Pre-conditions | * The user encounters issues during the password reset process or has concerns about their password security. |
| Sequence | * User encounters issues during the password reset process or has concerns about their password security. * User selects the option to contact support for assistance. |
| Input Values | * N/A |
| Expected Result | * System provides a means for the user to contact support. |
| Post-conditions | * User receives assistance or guidance from the support team regarding the password reset process or password security concerns. |

## Test Case 28: Password History Check

|  |  |
| --- | --- |
| Test Case ID | TC028 |
| Title | Password History Check |
| Pre-conditions | * The user is attempting to change their password. |
| Sequence | * User enters a new password that has been previously used within the specified period (e.g., the last five passwords). * User submits the new password. |
| Input Values | * New Password: PreviouslyUsed123 |
| Expected Result | * System detects that the new password has been used before and prevents its usage. * User receives an error message indicating that the new password cannot be reused. |
| Post-conditions | * User is prompted to enter a different password that has not been used within the specified period. |

## Test Case 29: Password History Check (Valid Password)

|  |  |
| --- | --- |
| Test Case ID | TC029 |
| Title | Password History Check (Valid Password) |
| Pre-conditions | * The user is attempting to change their password. |
| Sequence | * User enters a new password that has not been previously used within the specified period (e.g., the last five passwords). * User submits the new password. |
| Input Values | * New Password: NewPassword123 |
| Expected Result | * System validates the new password as it has not been used before within the specified period. * User's password is successfully updated in the system's database. |
| Post-conditions | * User's password is updated in the system's database and can be used for authentication. |

# Lockout due to an incorrect password

## Test Case 30: Failed Sign-In Attempt Tracking

|  |  |
| --- | --- |
| Test Case ID | TC030 |
| Title | Failed Sign-In Attempt Tracking |
| Pre-conditions | * User attempts to log in with an incorrect password. |
| Sequence | * User enters an incorrect password. * User submits the Sign-In form. |
| Input Values | * Email address: john@example.com * Password: IncorrectPassword123 |
| Expected Result | * System increments the failed Sign-In attempt count for the user by one. |
| Post-conditions | * Failed Sign-In attempt count for the user is incremented by one. |

## Test Case 31: Successful Sign-In

|  |  |
| --- | --- |
| Test Case ID | TC031 |
| Title | Successful Sign-In |
| Pre-conditions | * User attempts to log in with the correct password. |
| Sequence | * User enters the correct password. * User submits the Sign-In form. |
| Input Values | * Email address: john.doe@example.com * Password: Abc123!@# |
| Expected Result | * System resets the failed Sign-In attempt count for the user to zero. * User successfully logs in. |
| Post-conditions | * Failed Sign-In attempt count for the user is reset to zero, and the user is logged in. |

## Test Case 32: Account Lockout

|  |  |
| --- | --- |
| Test Case ID | TC032 |
| Title | Account Lockout |
| Pre-conditions | * User attempts to log in with an incorrect password exceeding the predefined threshold. |
| Sequence | * User enters an incorrect password multiple times, exceeding the predefined threshold (three). * User submits the Sign-In form. |
| Input Values | * Email address: john.doe@example.com * Password: IncorrectPassword123 (used three times) |
| Expected Result | * System increments the failed Sign-In attempt count for the user by one for each attempt. * System detects that the failed Sign-In attempt count exceeds the predefined threshold and locks the user's account. * User receives an appropriate error message indicating that their account has been locked due to excessive failed Sign-In attempts. * System logs the account lockout event for auditing and security purposes. |
| Post-conditions | * User's account is locked, and the failed Sign-In attempt count is incremented. |

## Test Case 33: Account Lockout Duration

|  |  |
| --- | --- |
| Test Case ID | TC033 |
| Title | Account Lockout Duration |
| Pre-conditions | * User attempts to access their locked account during the lockout duration. |
| Sequence | * User enters the correct password to log in. * User submits the Sign-In form. |
| Input Values | * Email address: john@example.com * Password: CorrectPassword123 |
| Expected Result | * System detects that the user's account is locked and prevents access, regardless of the password entered. * User receives an appropriate error message indicating that their account is locked. * System displays a countdown timer indicating the remaining lockout duration for the user. |
| Post-conditions | * User is unable to log in due to account lockout. |

## Test Case 34: Account Automatic Unlock

|  |  |
| --- | --- |
| Test Case ID | TC034 |
| Title | Account Automatic Unlock |
| Pre-conditions | * User's account is locked due to excessive failed Sign-In attempts. |
| Sequence | * User waits for the lockout duration to elapse. * User attempts to log in with the correct password. |
| Input Values | * Email address: john@example.com * Password: CorrectPassword123 |
| Expected Result | * System automatically unlocks the user's account after the lockout duration has elapsed. * User is able to log in successfully. |
| Post-conditions | * User's account is unlocked, and the user is logged in. |

## Test Case 35: Account Lockout Email Notification

|  |  |
| --- | --- |
| Test Case ID | TC035 |
| Title | Account Lockout Email Notification |
| Pre-conditions | * User's account is locked due to excessive failed Sign-In attempts. |
| Sequence | * User's account reaches the threshold for failed Sign-In attempts, and the account is locked. * System sends an email notification to the user informing them of the account lockout. |
| Input Values | * N/A |
| Expected Result | * User receives an email notification stating that their account has been locked due to excessive failed Sign-In attempts. * Email notification includes information about the lockout duration and a link to contact support for assistance. |
| Post-conditions | * User receives an email notification about the account lockout. |

## Test Case 36: Password Reset during Account Lockout

|  |  |
| --- | --- |
| Test Case ID | TC036 |
| Title | Password Reset during Account Lockout |
| Pre-conditions | * User's account is locked due to excessive failed Sign-In attempts. |
| Sequence | * User clicks on the "Forgot Password" form * User enters their registered email address in the password recovery form. * User submits the password recovery form. |
| Input Values | * Email Address: john@example.com |
| Expected Result | * System verifies the user's email address and confirms that the account is currently locked. * System sends a password recovery email to the user's registered email address, providing instructions to reset the password during the account lockout period. * User receives the password recovery email with an OTP to reset their password. |
| Post-conditions | * User receives a password recovery email with instructions to reset the password during the account lockout period. |

# ~~Reset PW~~

## ~~Test Case 37: Successful Password Recovery~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC037~~ |
| ~~Title~~ | ~~Successful Password Recovery~~ |
| ~~Pre-conditions~~ | * ~~User is on the password recovery form~~ |
| ~~Sequence~~ | * ~~User enters a valid email address in the password recovery form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~Email address: john.doe@example.com~~ |
| ~~Expected Result~~ | * ~~System validates the email address~~ * ~~System verifies the existence of the email address in the user database~~ * ~~System generates a temporary password~~ * ~~System sends the temporary password to the user's email address~~ * ~~System displays a success message indicating that the password recovery email has been sent~~ |
| ~~Post-conditions~~ | * ~~User receives the password recovery email~~ |

## ~~Test Case 38: Password Recovery with Invalid Email Address~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC038~~ |
| ~~Title~~ | ~~User initiates password recovery with an invalid email address~~ |
| ~~Pre-conditions~~ | * ~~User is on the password recovery form~~ |
| ~~Sequence~~ | * ~~User enters an invalid email address in the password recovery form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~Email address: "invalid\_email"~~ |
| ~~Expected Result~~ | * ~~System validates the email address and identifies it as invalid~~ * ~~System displays an error message indicating that the entered email address is invalid~~ |
| ~~Post-conditions~~ | * ~~No password recovery email is sent~~ |

## ~~Test Case 39: Successful Password Reset~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC039~~ |
| ~~Title~~ | ~~User successfully resets their password~~ |
| ~~Pre-conditions~~ | * ~~User receives the password recovery email and clicks on the reset password link~~ |
| ~~Sequence~~ | * ~~User logs in with a temporary password.~~ * ~~The system displays a password reset form.~~ * ~~User enters a new password in the form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~New password: "NewPassword123!"~~ |
| ~~Expected Result~~ | * ~~System validates the new password~~ * ~~System updates the user's password in the database~~ * ~~System displays a success message indicating that the password has been successfully reset~~ * ~~System sends a password change notification email to the user~~ |
| ~~Post-conditions~~ | * ~~User's password is successfully reset~~ |

## ~~Test Case 40: Password Reset with Invalid New Password~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC040~~ |
| ~~Title~~ | ~~User attempts to reset password with an invalid new password~~ |
| ~~Pre-conditions~~ | * ~~User is on the secure password reset form~~ |
| ~~Sequence~~ | * ~~User enters an invalid new password in the form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~New password: "12345"~~ |
| ~~Expected Result~~ | * ~~System validates the new password and identifies it as invalid~~ * ~~System displays an error message indicating that the entered password is invalid~~ |
| ~~Post-conditions~~ | * ~~User's password remains unchanged~~ |

## ~~Test Case 41: Password Reset with Network Error~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC041~~ |
| ~~Title~~ | ~~User encounters a network error during password reset~~ |
| ~~Pre-conditions~~ | * ~~User is on the secure password reset form~~ |
| ~~Sequence~~ | * ~~User enters a new password in the form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~New password: "NewPassword123!"~~ |
| ~~Expected Result~~ | * ~~System encounters a network error while updating the user's password in the database~~ * ~~System displays an error message indicating the network error and suggests trying again later~~ |
| ~~Post-conditions~~ | * ~~User's password remains unchanged~~ |

## ~~Test Case 42: Password Reset with Database Failure~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC042~~ |
| ~~Title~~ | ~~User encounters a database failure during password reset~~ |
| ~~Pre-conditions~~ | * ~~User is on the secure password reset form~~ |
| ~~Sequence~~ | * ~~User enters a new password in the form~~ * ~~User submits the form~~ |
| ~~Input Values~~ | * ~~New password: "NewPassword123!"~~ |
| ~~Expected Result~~ | * ~~System encounters a database failure while updating the user's password~~ * ~~System displays an error message indicating the database failure and suggests contacting support~~ |
| ~~Post-conditions~~ | * ~~User's password remains unchanged~~ |

## ~~Test Case 43: Password Reset without Entering New Password~~

|  |  |
| --- | --- |
| ~~Test Case ID~~ | ~~TC043~~ |
| ~~Title~~ | ~~User attempts to reset password without entering a new password~~ |
| ~~Pre-conditions~~ | * ~~User is on the secure password reset form~~ |
| ~~Sequence~~ | * ~~User submits the form without entering a new password~~ |
| ~~Input Values~~ | * ~~N/A~~ |
| ~~Expected Result~~ | * ~~System validates the form and identifies the missing new password field~~ * ~~System displays an error message indicating that a new password is required~~ |
| ~~Post-conditions~~ | * ~~User's password remains unchanged~~ |

# Unique ID & Contact list

## Test Case 44: Display unique contact identifier

|  |  |
| --- | --- |
| Test Case ID | TC044 |
| Title | Display unique contact identifier |
| Pre-conditions | * N/A |
| Sequence | * User has successfully logs in the system. |
| Input Values | * N/A |
| Expected Result | * Displayed contact lists (last name, first name, e-mail, contact identifier). * No other user in the system has the same contact identifier. |
| Post-conditions | * N/A |

## Test Case 45: Display contact name instead of contact identifier

|  |  |
| --- | --- |
| Test Case ID | TC045 |
| Title | Display contact name instead of contact identifier |
| Pre-conditions | * The contact list contains a contact with associated contact identifier. |
| Sequence | * User initiates a video call with a contact. |
| Input Values | * N/A |
| Expected Result | * The application displays the contact's name instead of the contact identifier during the video call. |
| Post-conditions | * The video call is connected with the correct contact. |

# Call

## Test Case 46: Initiate a call using a contact identifier

|  |  |
| --- | --- |
| Test Case ID | TC046 |
| Title | Initiate a call using a contact identifier |
| Pre-conditions | * User is logged in and has access to the contact identifier. |
| Sequence | * User enters a valid contact identifier to initiate a call. |
| Input Values | * Contact identifier (valid) |
| Expected Result | * The call is successfully initiated with the specified contact. * The call log is updated with the call start time, duration, participants, and call outcome. |
| Post-conditions | * The call log is updated with the call details. |

## Test Case 47: View call history

|  |  |
| --- | --- |
| Test Case ID | TC047 |
| Title | View call history |
| Pre-conditions | * User has made previous calls and the call history is available. |
| Sequence | * User navigates to the call history feature. |
| Input Values | * N/A |
| Expected Result | * The call history is displayed, showing past calls with details like participants, timestamps, and call duration. |
| Post-conditions | * The call history is displayed to the user. |

## Test Case 48: Check call status and outcome during call initiation

|  |  |
| --- | --- |
| Test Case ID | TC048 |
| Title | Check call status and outcome during call initiation |
| Pre-conditions | * User is initiating a call. |
| Sequence | * User initiates a call. |
| Input Values | * N/A |
| Expected Result | * The user is presented with the call status (e.g., ringing) during call initiation. * The call outcome is displayed once the call is answered, busy, or rejected. |
| Post-conditions | * The user is informed about the call status and outcome. |

## Test Case 49: End the call during call initiation

|  |  |
| --- | --- |
| Test Case ID | TC049 |
| Title | End the call during call initiation |
| Pre-conditions | * User is initiating a call. |
| Sequence | * User initiates a call. * User chooses to end the call. |
| Input Values | * N/A |
| Expected Result | * The call initiation process is interrupted, and the call is not connected. |
| Post-conditions | * The call initiation process is terminated. |

# Connection, Notice and Disconnect

## Test Case 50: Accept incoming call

|  |  |
| --- | --- |
| Test Case ID | TC050 |
| Title | Accept incoming call |
| Pre-conditions | * User is logged in and is not currently in a call. |
| Sequence | * User receives an incoming call notification. * User selects the option to accept the call. |
| Input Values | * Selected option = Accept |
| Expected Result | * The system establishes the call connection. * The user interface transitions to the active call screen, showing the contact name of the caller. |
| Post-conditions | * The user is in an active call with the caller. |

## Test Case 51: Reject incoming call

|  |  |
| --- | --- |
| Test Case ID | TC051 |
| Title | Reject incoming call |
| Pre-conditions | * User is logged in and is not currently in a call. |
| Sequence | * User receives an incoming call notification. * User selects the option to reject the call. |
| Input Values | * Selected option = Reject |
| Expected Result | * The incoming call is terminated. * The user interface remains in the current state. |
| Post-conditions | * The user is not in a call and returns to their previous state. |

## Test Case 52: Missed call notification (call not accepted)

|  |  |
| --- | --- |
| Test Case ID | TC052 |
| Title | Missed call notification (call not accepted) |
| Pre-conditions | * User is logged in and has missed an incoming call. |
| Sequence | * User receives a missed call notification. * User opens the missed call notification. |
| Input Values | * N/A |
| Expected Result | * The system displays the missed call information, including the contact identifier or contact name of the caller. |
| Post-conditions | * The user is informed about the missed call. |

## Test Case 53: Missed call notification (called entity in another call)

|  |  |
| --- | --- |
| Test Case ID | TC053 |
| Title | Missed call notification (called entity in another call) |
| Pre-conditions | * User is logged in and has missed an incoming call due to the called entity being in another call. |
| Sequence | * User receives a missed call notification. * User opens the missed call notification. |
| Input Values | * N/A |
| Expected Result | * The system displays the missed call information, including the contact identifier or contact name of the caller. |
| Post-conditions | * The user is informed about the missed call. |

## Test Case 54: Call termination notification

|  |  |
| --- | --- |
| Test Case ID | TC054 |
| Title | Call termination notification |
| Pre-conditions | * User A and User B are engaged in an active call. |
| Sequence | * User A terminates the call. |
| Input Values | * Termination action by User A |
| Expected Result | * User B receives a call termination notification. |
| Post-conditions | * The call is ended for both User A and User B. |

## Test Case 55: Application brought to the foreground during incoming call

|  |  |
| --- | --- |
| Test Case ID | TC055 |
| Title | Application brought to the foreground during incoming call |
| Pre-conditions | * User is logged in and the application is running in the background. |
| Sequence | * User receives an incoming call. |
| Input Values | * Incoming call notification |
| Expected Result | * The application is brought to the foreground, becoming the active window. * The user interface displays the incoming call screen with the contact name of the caller. |
| Post-conditions | * The user is presented with the incoming call screen. |

# Communication methods

## Test Case 56: Point-to-point communication functionality

|  |  |
| --- | --- |
| Test Case ID | TC056 |
| Title | Point-to-point communication functionality |
| Pre-conditions | * The application is installed and running on both endpoints of the call. |
| Sequence | * User A initiates a call to User B. |
| Input Values | * Call initiation by User A |
| Expected Result | * User B functions as the server, waiting for a response from User A. * User A functions as the client, receiving the call initiation request. |
| Post-conditions | * User A and User B establish a point-to-point communication connection. |

## Test Case 57: Call initiation failure

|  |  |
| --- | --- |
| Test Case ID | TC057 |
| Title | Call initiation failure |
| Pre-conditions | * The application is installed and running on both endpoints of the call. |
| Sequence | * User A initiates a call to User B. * User B's device is turned off or not connected to the network. |
| Input Values | * Call initiation by User A |
| Expected Result | * User A's application displays an error message indicating the call initiation failure. * User B's application does not receive the call initiation request. |
| Post-conditions | * The call is not established due to the unavailability of User B. |