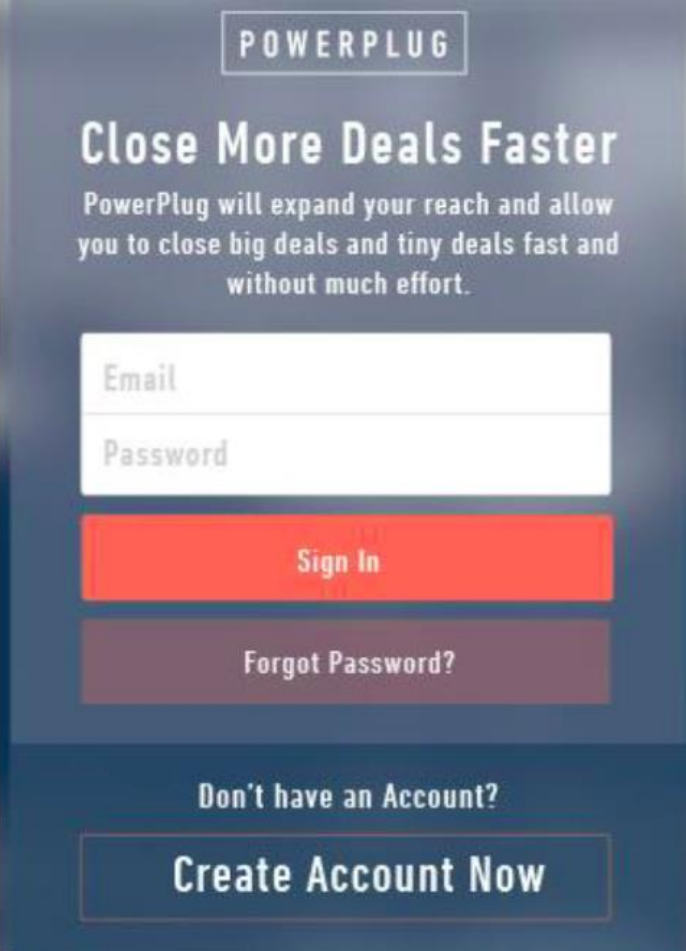


## Login Exercise

### 1

#### Screen 1



The screenshot shows a login interface for 'POWERPLUG'. At the top, the logo 'POWERPLUG' is in a white box. Below it, the heading 'Close More Deals Faster' is in large white text. A subtext in smaller white font says: 'PowerPlug will expand your reach and allow you to close big deals and tiny deals fast and without much effort.' Below this is a login form with two white text input fields labeled 'Email' and 'Password'. Under the 'Password' field is a red 'Sign In' button. Below the 'Sign In' button is a dark grey button labeled 'Forgot Password?'. At the bottom of the form is a dark blue button labeled 'Create Account Now'.

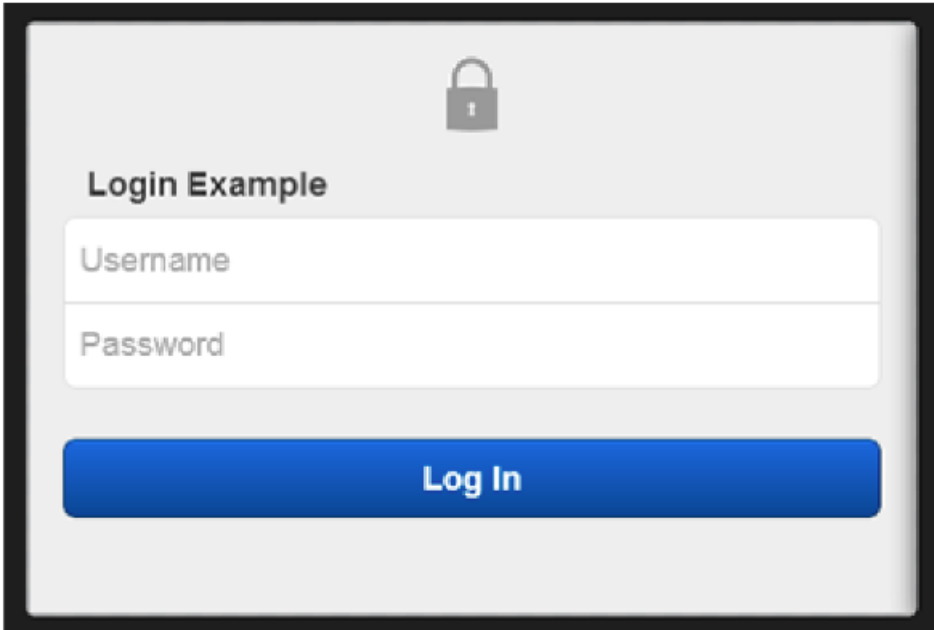
The initial login screen It has two text fields: one for a login username, which is an email address, and another for a password. It also has a command button that starts the password checking process. It is an error that must be reported to the user if one of the text boxes is left blank. If both fields are filled in but the user's name is not recorded or the password is wrong, the user must be notified.

Users that have not yet registered cannot log in. They must first register by clicking on the register command button. They should be able to do this without getting an error for an empty name or password field.

The registration page should be displayed when a user clicks on the register command button in the login page. It should provide three text fields - one for entering a login name and two for

entering passwords. In addition, it should have a command button that initiates the registration action.

## Screen 2

A login form titled "Login Example" with a lock icon at the top. It contains two text input fields labeled "Username" and "Password", and a blue "Log In" button at the bottom.

Login Example

Username

Password

Log In

The initial login screen It has two text fields: one for a login username, which is an email address, and another for a password. But there's no signup, forgotten password link, and there's no help link and Terms and Condition check box. No cancel button, remember me checkbox.

## Screen 3

Please enter username/password

**User Name**

**Password**  ?

**Login** **Cancel**

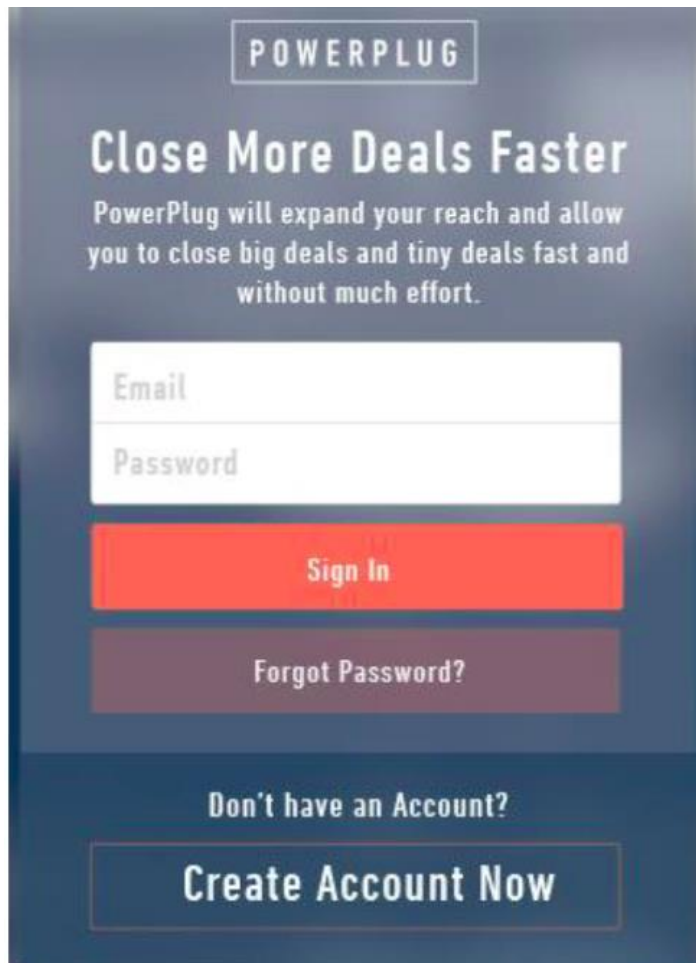
[forgot password?](#)

The initial login screen It has two text fields: one for a login username, which is an email address, and another for a password. But there's no signup. And there's Terms and Condition check box. There's no remember me checkbox.

## **2. Questions to Developers**

### **FUNCTIONAL REQUIREMENTS**

#### ***Sign In***



The image shows a login and registration interface for 'POWERPLUG'. At the top, the brand name 'POWERPLUG' is in a white box. Below it, the headline 'Close More Deals Faster' is in large white text, followed by a sub-headline: 'PowerPlug will expand your reach and allow you to close big deals and tiny deals fast and without much effort.' The form consists of two white input fields labeled 'Email' and 'Password'. Below these is a prominent red 'Sign In' button. Underneath the button is a dark grey link that says 'Forgot Password?'. At the bottom of the form is a dark blue section with the text 'Don't have an Account?' and a large white button labeled 'Create Account Now'.

1. Allow the person to simply enter their email address or provide them other alternatives such as Facebook, Gmail, and LinkedIn?
2. How are the essential authentication and authorisation allowed if other alternatives are to be included? E.g. Is it possible to register this app in Google API Console for Gmail login?
3. Allow users to log in using their email address or phone number?
4. How should the error message be displayed if the user is a new user and enters the email id without signing up? Prompt the user to the Sign-up page?
5. If an existing user signs up using Google or Facebook and then tries to log in with the same email address, should the user be notified and redirected?
6. What are the possibilities for password recovery if the user forgets their password?
  - 6.1 Allow users to log in using a one-time password (OTP) provided to their registered email or phone number?
  - 6.2 Should the account be locked if the user enters the erroneous password many times?

- If Yes, then after how many attempts? How to display the total attempts and attempts expired?
- How can I regain access to my account that has been locked? Should a time restriction be established for automated unlocking/sending a recovery option to the email address/intervening by an admin?

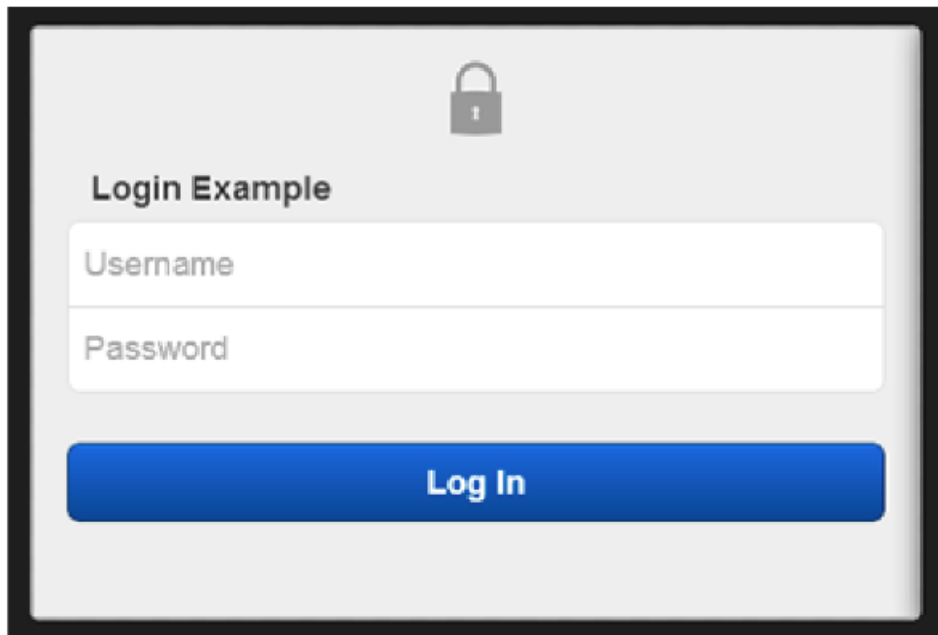
### ***Sign-up***

1. What are the fields that a new user must fill out in order to register? Name/Email id/phone?
2. What should be the strength of the password? Display the password security criteria and strength?

Or allow the user to always login using an OTP sent to phone or email and completely remove the password field?

3. Should the user be prohibited from using the copy-paste option while inputting passwords?
4. All the validation to be done while the user selects to register? Existing email id? Existing phone? Is password valid?
5. If all of the validations are successful, would an OTP be issued to the phone number and/or a validation email be sent to the email address to complete the registration?

### **Second Screen**



1. If the user is a new user and enters the email id without signing-up how the error message should be displayed? Prompt the user to the Sign-up page?

Username and/or password have been forgotten by the user. There is a link to start the process of resetting this information. The contents of the login page are replaced with fields related to retrieving the user's username and/or password whenever the user clicks on one of these links. Is that stuff displayed?

2. If the user forgets the password, what are the password recovery options?

2.1 Should an account be locked if a user repeatedly enters incorrect passwords?

- If yes, then after how many attempts? How to display the total attempts and attempts expired?
- How to recover the locked account? Should a time limit be set to unlock automatically / send a recovery option to the email id / an admin should intervene?

### Third Screen

Please enter username/password

**User Name**

**Password**  ?

**Login** **Cancel**

[forgot password?](#)

1. If the user is a new user and enters the email ID without signing-up how the error message should be displayed? Prompt the user to the Sign-up page?
2. If the user forgets the password, what are the password recovery options?
  - 2.1 If the user enters the wrong password multiple times, should the account be locked?
    - If yes, then after how many attempts? How to display the total attempts and attempts expired?
    - How to recover the locked account? Should a time limit be set to unlock automatically /send a recovery option to the email id / an admin should intervene?
    - If the user's login credentials fail, does the system display a message to the user indicating that authentication has failed?
    - How do users unlock, retrieve, or reset their passwords if they forget them?

### UX REQUIREMENTS

1. What should each field on the sign-in and sign-up screens be called?
2. Do we use images or text for Facebook/Google sign in options?
3. Where should the fields be located in the user interface?
4. What should the error or warning message look like and where should it be displayed?
5. When the warning or error messages should be removed?

### **NON-FUNCTIONAL REQUIREMENTS**

1. Is this going to be only a web application and/or a mobile application?
2. If mobile App then what kind? Native, Hybrid or web ?
3. 2.1 Which operating system is supported: Android or iOS?
4. 2.2 UI and functionality to be rendered properly for all types of display resolutions
5. 3. How many users are expected to use this application?
6. 3.1 Is the system scalable in case of an increase in the number of users? up-to what limit?

### **3 . Registration and Login UX Design Suggestions**

- Allow users to log into their account by entering their email and password.
- Focus on first field, Auto focus on the first input field in the form.
- Let users know if caps lock is on while typing password.
- Allow users to log in with their Google accounts.
- Allow users to reset their password by clicking on "I forgot my password" and receiving a link to their verified email address.
- The system must have CAPTCHA
- Differentiate login from registration
- Allow people to sign in using a different account than their own (e.g., Facebook).
- Use email address, rather than username
- Let users see their password (if they want to).
- Remember users when they return.
- Make it easy if users forget their password.
- Keep your Text Fields Close Together.
- Keep the Page Weight Down.

### **4. Test Cases**



I usually write test cases for the login/Registration page for every application I test. Every login/Registration page should have the following elements.

- Email/Phone Number/Username Textbox
- Password Textbox
- Login Button
- Remember Me Checkbox
- Keep Me Signed in Checkbox
- Forgot Password Link
- Sign up/Create an account Link
- CAPTCHA

### **Functional Test Cases:**

#### **Positive Test cases**

1. Check that a user can log in using a valid username and password.
2. Verify the 'Forgot Password' functionality
3. Verify the messages for invalid login.
4. Verify the 'Remember Me' functionality.
5. Verify if the data in password field is either visible as asterisk or bullet signs.
6. Verify if a user is able to login with a new password only after he/she has changed the password.
7. Verify if the login page allows to log in simultaneously with different credentials in a different browser.
8. Verify if the 'Enter' key of the keyboard is working correctly on the login page.

#### **Negative Test cases**

1. Verify if a user cannot login with a valid username and an invalid password.
2. Verify the login page for both, when the field is blank and Submit button is clicked.

#### **Other Test Cases**

1. **Performance & Positive Testing** - Verify the time taken to log in with a valid username and password.
2. **UI Testing & Positive Testing** - Verify if the font, text color, and color coding of the Login page is as per the standard.

3. **Usability Testing** - Verify if there is a 'Cancel' button available to erase the entered text.
4. **Browser Compatibility & Positive Testing** - Verify the login page and all its controls in different browsers.

### **Non-functional Security Test Cases:**

#### **Positive Test Cases**

1. Verify if a user cannot enter the characters more than the specified range in each field (Username and Password).
2. Verify the timeout functionality of the login session.
3. Verify if a user should be able to login with the same credentials in different browsers at the same time.

#### **Negative Test Cases**

1. Verify if a user cannot enter the characters more than the specified range in each field (Username and Password).
2. Verify the login page by pressing 'Back button' of the browser. It should not allow you to enter into the system once you log out.
3. Verify if a user should not be allowed to log in with different credentials from the same browser at the same time.