

Trade Test - Senior Software Engineer

Disneyland currently has several characters, but they don't know which is the favorite character of people visiting. They'd like to know this information and would like you to build a web application to do the following.

Patron Voting

We need to build an app that provides a screen at Disneyland to allow patrons to pick their favorite character. The patron interface will have the following screens:

	Screen	Details
1	Favorite Character Picker	This UI shows up a list of all characters, and allows the patron to click on the one that's their favorite. Once they click on their favorite, a vote is registered for that character, a thank you message shows up to the user, and 3 seconds later, the original voting screen shows up for other patrons to vote.

Disney Administration

Disney's admin team would also like to manage the app, and also review the data. We need an admin interface with the following:

	Screen	Details
1	Sign In	Admins can log in with their credentials.
2	Sign Out	
3	Change Password	Admins should be able to change their passwords.
4	Manage Users	There should be an admin interface to manage users, which includes functionality for: 1. View & search users 2. Add user 3. Update user

5	Manage Characters	<p>There should be an admin interface to manage the characters which are shown to the patrons, which includes functionality for:</p> <ol style="list-style-type: none"> 1. View & search characters 2. Add character 3. Update character
6	Character Popularity Report	<p>This should be a graphical report that shows on screen, that allows the administration to view/manage the following data:</p> <ol style="list-style-type: none"> 1. Number of total votes over time (grouped daily) 2. The number of votes per character over time 3. Top 5 most popular characters 4. Character popularity by time of day <ol style="list-style-type: none"> 1. Which characters are most popular in the morning 2. Which characters are most popular in the afternoons 3. etc. <p>The administration should also filter what data is shown up, by:</p> <ol style="list-style-type: none"> 1. Period - they should be able to specify which date period they'd like to see data for. 2. Character - they should be able to select which character or characters they'd like to see data for. <p>Note: Use appropriate charts and graphs to show and represent your data.</p>