

# Requirements and Design Interview

*ITCS 5166 – Network Based Application Development*

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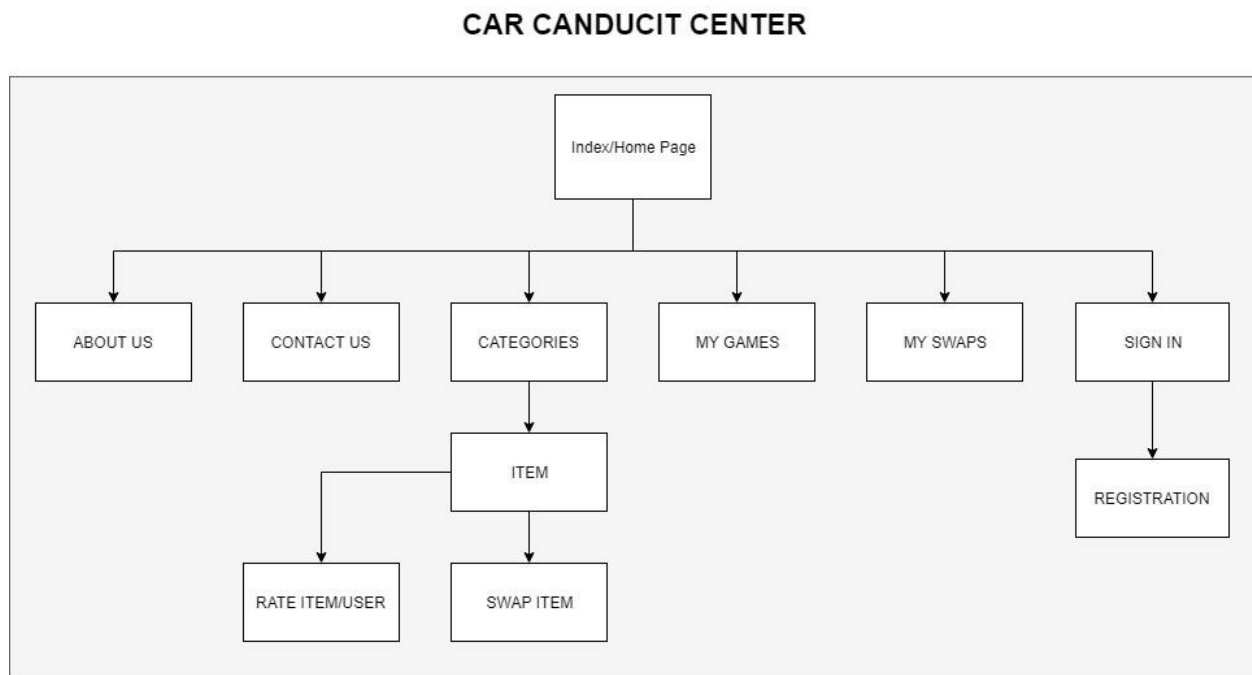
## Project Overview:

Lot of people book rental cars for travelling long distance and there is a large market for the car rental business. There is a huge competition among different companies that are involved in this business. Rental for each car varies based on its branding, type of car and number of days car has been rented. “Car Canducit Center” (CCC) is an attempt to create a rental system where a user can rent car which is available in the store or he can rent his own car for the other user based on some conditions. This was the main idea behind this application.

The main part of this idea is to create a stable application where user can swap another user car efficiently. To perform this functionality each user must have a profile and items linked to his profile so that other user can swap their cars with theirs. To perform swap functionality following pages are required.

1. An index/home page which describes information about the application. It is the welcome screen for all the users.
2. Categories page displays different types of cars which are available for the user for swapping. This page provides option for user to view each category of cars separately or view categories together.
3. Item page displays information about each car in detail. This page provides two option for the user, “Swap it” and “Rate it”.
4. My Swaps page shows information about different swap offers available for the user. User can either “Accept” or “Reject” other user offer or user can “Withdraw” his offer on other user items.
5. My cars page shows information about the items this user has with him. User can update or delete his cars.
6. Swap page is used by the user to create a swap request on other user cars.
7. Rate-it page is used for the user to rate his item, other user item and other user.
8. A registration page for the user to register to this application.
9. A sign-in page to sign in to his account using credentials.
10. About, Contact US page is common for all users where user can see information about history of application and contact information for the application.

## Site Map:



## Page Design:

### 1. Index Page:

**Purpose:** This page is the start page/ home page for the user who enters the application.

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** None

**Data Validations:** None

#### Hyperlinks:

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- About US: This link shows the information about CCC by redirecting to “About US” page.
- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.

## 2. About US Page:

**Purpose:** This page provides information about the application and its history on it evolved over the years.

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars" page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to "My Swaps" page.
- About US: This link shows the information about CCC by redirecting to "About US" page.
- Contact US: This link shows the contact information for the application CCC by redirecting to "Contact US" page.
- Categories: This page will different categories of cars in the application CCC by redirecting to "Categories" page.
- Home: This page redirects user to this Home/Index page.

## 3. Contact US Page:

**Purpose:** This page provides the contact information for the application

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars" page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to "My Swaps" page.
- About US: This link shows the information about CCC by redirecting to "About US" page.
- Contact US: This link shows the contact information for the application CCC by redirecting to "Contact US" page.
- Categories: This page will different categories of cars in the application CCC by redirecting to "Categories" page.
- Home: This page redirects user to this Home/Index page.

#### 4. Categories Page:

**Purpose:** This page shows different categories of cars available in the application. User can view each categories of items separately by selecting that category from the drop-down list box or user can see items available in all category by selection all option present in the drop-down list box.

**Note:** This page won't show user items and items with pending status in the categories.

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars" page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to "My Swaps" page.
- About US: This link shows the information about CCC by redirecting to "About US" page.
- Contact US: This link shows the contact information for the application CCC by redirecting to "Contact US" page.
- Categories: This page will different categories of cars in the application CCC by redirecting to "Categories" page.
- Home: This page redirects user to this Home/Index page.
- Item (Car): This page shows detailed description about the car by redirecting to "ITEM" page.

#### 5. My Cars Page:

**Purpose:** This page will show all the user which user possess. It provides option for the user to either update or delete his item.

**Audience for the page:** This page is accessible by the users who has successfully registered and logged in. Items shown in the page is related to each user.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars" page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to "My Swaps" page.
- About US: This link shows the information about CCC by redirecting to "About US" page.

- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.
- Item (Car): This page shows detailed description about the car by redirecting to “ITEM” page.

**Buttons:**

- Update: Based on the item status, this button redirects to “ITEM” page or “MY SWAP” page.
- Delete: This button will delete that item. Item with status “AVAILABLE” will be deleted and for all other item an error message will be shown if this button is pressed.

## 6. My Swaps Page:

**Purpose:** This page displays different offers available for the user.

**Audience for the page:** This page is accessible by the users who has successfully registered and logged in. Items shown in the page is related to each user.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- About US: This link shows the information about CCC by redirecting to “About US” page.
- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.
- Item (Car): This page shows detailed description about the car by redirecting to “ITEM” page.

**Buttons:**

- Accept: This button will accept the offer given the other user and swaps this user item with the other user item.
- Reject: This button will reject the offer given the other user and changes the status of both items to available.

- **Withdraw:** This button will withdraw the offer created the user and changes the status of both items to available.

## 7. Login Page:

**Purpose:** This page is the place where user provides his credentials for login to the application

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** Email Address and Password.

**Data Validations:** Checks whether the email id and password are valid and format of email id is checked.

**Hyperlinks:**

- **Sign In/Sign Out:** Using this hyperlink user can either sign in/sign out of the application
- **My Cars:** This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- **My Swaps:** This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- **About US:** This link shows the information about CCC by redirecting to “About US” page.
- **Contact US:** This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- **Categories:** This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- **Home:** This page redirects user to this Home/Index page.
- **Register:** This link will redirect to Register page where can register to the application.

**Buttons:**

- **Login:** This button will validate the credentials. If all the validation is successful, “My Cars” page is triggered.

## 8. User Registration Page:

**Purpose:** This page will enable user to register to the application. Once all the fields are validated, user information gets saved successfully to the application and page gets redirected to login page.

**Audience for the page:** This page is accessible by all the users.

**Data Fields:** First Name, Last Name, Email Address, Address 1, Address 2, City, State, Country, Post Code, Password and Confirm Password

**Data Validations:**

- First Name, Last Name are validated to enter only characters
- Address 1, City, State, Post Code and country are validated to have at least 2 characters.
- Post Code is validated to be numeric

- Password is validated to be alphanumeric and confirm password is validated to be same as password.

#### **Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- About US: This link shows the information about CCC by redirecting to “About US” page.
- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.

#### **Buttons:**

- Register: This button will validate the credentials. If all the validation is successful, “My Cars” page is triggered.

### **9. Item Page:**

**Purpose:** This page shows detailed information about the item and provides two buttons swap it and rate it for the user.

**Audience for the page:** This page is accessible by the current users as well as for the other user.

**Data Fields:** None

**Data Validations:** None

#### **Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- About US: This link shows the information about CCC by redirecting to “About US” page.
- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.

**Buttons:**

- Swap it: This button trigger “Swap” page
- Rate it: This button will trigger “Rate IT” page.

## 10. Swap Page:

**Purpose:** This page allows user to create a new offer with his item and the item user wants to swap.

**Audience for the page:** This page is accessible by the users who has successfully registered and logged in. Items shown in the page is related to each user.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application
- My Cars: This hyperlink will show the cars which user possess by redirecting to “My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
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- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.

**Buttons:**

- Radio Button: This button selects the item on which user wants to swap. Only available items under a user are shown with radio buttons
- Confirm Swap: This button create confirms the swap, creates a new offer for the user and redirects to “MY CARS” page

## 11. Rate IT Page:

**Purpose:** This page enables the user to provide rating to the user and item.

**Audience for the page:** This page is accessible by the users who has successfully registered and logged in. Items shown in the page is related to each user.

**Data Fields:** None

**Data Validations:** None

**Hyperlinks:**

- Sign In/Sign Out: Using this hyperlink user can either sign in/sign out of the application



- My Cars: This hyperlink will show the cars which user possess by redirecting to :My Cars” page.
- My Swaps: This hyperlink will show different offers available for users and the offers requested by the user by redirecting to “My Swaps” page.
- About US: This link shows the information about CCC by redirecting to “About US” page.
- Contact US: This link shows the contact information for the application CCC by redirecting to “Contact US” page.
- Categories: This page will different categories of cars in the application CCC by redirecting to “Categories” page.
- Home: This page redirects user to this Home/Index page.

**Buttons:**

- Submit: This button submits the rating for the user and the item.

ER Diagram:

