**Customer app functional requirements**

* App must allow customers to register through Facebook + alternative (more details…)
* App must allow customers to see and edit personal information (default address, credit card info + more…)
* App must allow customers to click the “Book Cleaning” button to take them to the “Select Location” screen (more details…)
* App must generate profile address by default in “Select Location” screen and provide the customer the ability to change it for that instance (more details…)
* Clicking the “Next” button in the “Select Location” screen takes customer to “Day and Time” screen. It also calls a function~ to pull up an aggregate availability selection calendar in the next screen (the function must be able to identify available slots for the cleaning professionals in the various cleaning companies near the service location, and create and display a custom selection calendar for that instance. More details…)
* App must allow customer to select an available slot, and not allow the customer to select a taken slot (Each cleaning professional has 2 available slots per day, morning and afternoon)
* Clicking the “Next” button after selecting a slot in the custom-generated calendar takes customer to “Bed/Bath” screen. It also calls a function~ to assign the selected slot to the nearest cleaning professional with that open slot (the function must assign the booking to the cleaning professional’s calendar, identify the cleaning company associated with that cleaning professional, and generate input prompts for the number of bedrooms and bathrooms. More details…)
* App must correctly generate an expected $ quote and service duration when customer enters the number of bedrooms and bathrooms (Each cleaning company has its own custom formula~ to generate expected total $ amount. Duration will be a function of X and Y only, and therefore constant for all cleaning companies. More details…)
* Clicking the “Next” button after selecting X and Y takes customer to “Payment” screen.
* App must allow customer to optionally enter text instructions for the cleaning professional in the “Payment” screen.
* App must allow customer to enter credit card information securely and ask customer if they would like to store/remember it automatically for future bookings (If yes, profile cc info is automatically updated. More details…)
* App must allow customer to finalize booking by clicking the “Book Now” button. This calls a function to officially assign the booking to the cleaning professional and send a confirmation notification to both parties, main admin, and specific cleaning company admin.
* App must allow customer to click the “Current Bookings” button on the main screen and display ongoing and upcoming bookings as a list with specifics (also allow customer to click “Cancel Booking” button, present a reason prompt, and a button to finalize cancellation. Upon cancellation, cleaning professional is notified and slot opens. Notify admins as well. Cancellation policy + more details…)
* Allow customer app to receive notifications from [main admin, cleaner app(?), …] (SMS notifications, or “Notifications” button that takes you to a history list?)
* App must allow customer to rate experience upon job completion.
* App must continue to function without a network connection.
* App must save all information in a database (details…)
* App must track customers via geolocation (details…)

**Customer app non-functional requirements**

* App must comply with all relevant regulations.
* Customer app must integrate with cleaner app.
* App must integrate with third party software (e.g. **Stripe**, Azure, Salesforce [website], Bench, Kissmetrics, etc.)
* App must have strong cybersecurity in place to adequately protect users’ personal information.
* App must provide users with legal documentation for signature (details…)
* Customers must be able to complete bookings in under 60 seconds.

**Use Case – What’s the goal? Who desires the goal? How is the goal accomplished?**

**Title – Register new customer**

Actor – Customer

Scenario – **Customer** clicks “Register” button option (FB [customer app connects to Facebook~] + alt). If alt, System *displays* **form** with input fields. Customer *fills in* **required information**. System displays **legal documentation link** and checkmark box at the bottom. Customer clicks “Register Now” button. System takes customer to the default screen and *displays* a confirmation **notification**. System *sends* **email** to **main admin**.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Customer Registration
3. Legal Documentation
4. Push Notification
5. Email
6. Main Administrator

**Responsibilities:**

1. Send push notification confirmation.
2. Send email notification confirmation.
3. Save registration form input information.

**Title – Edit profile information**

Actor – Customer

Scenario – Customer clicks “Profile” button. Customer is taken to a form screen. Customer can edit the fields and click “Save Changes” button to update their profile information.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Customer Profile

**Responsibilities:**

1. Accept user input
2. Save and update changes

**// Title – Book cleaning service**

Actor – Customer

Scenario – Customer clicks “Book Cleaning” button in default screen. Customer is taken to the service location screen. System identifies profile address as the default service location.

[Extensions & Preconditions]

**Candidate objects:**

**Responsibilities:**

**Title – Select service location**

Actor – Customer

Scenario – Customer can edit the default address optionally, which updates the service location variable. Customer clicks “Next” button. System identifies from database all cleaning companies and cleaning professionals within a 30-mile radius.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Service Location
3. Database

**Responsibilities:**

1. Set profile address as default
2. Allow manual address change + update
3. Identify cleaners within 30-mile radius

**Title – Select day and time**

Actor – Customer

Scenario – System displays an aggregate availability selection calendar. Days with any available slots are displayed, and unavailable days are greyed out. Customer selects a day. Customer selects morning slot or afternoon slot. Customer clicks “Next” button. System pre-assigns booking to the nearest cleaning professional based on slot availability.

[Extensions & Preconditions]

**Candidate objects:**

1. Calendar
2. Customer

**Responsibilities:**

1. Display availability calendar
2. Allow day selection
3. Allow time slot selection
4. Pre-assign booking to nearest cleaning professional

**Title – Select bedrooms and bathrooms**

Actor – Customer

Scenario – Customer selects number of bedrooms and bathrooms. System automatically generates a custom expected quote amount and total service duration, based on the specific cleaning company. Customer clicks “Next” button and is taken to the payment screen.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Bed/Bath
3. Custom Quote

**Responsibilities:**

1. Select number of bedrooms and bathrooms
2. Display custom expected quote amount
3. Display expected service duration

**Title – Generate quote and duration**

Actor – System~?

Scenario – When customer selects both X and Y, use specific cleaning company formula to generate expected quote amount and total service. System uses the same total duration formula for all cleaning companies. System displays numbers in X&Y screen.

[Extensions & Preconditions]

**Candidate objects:**

1. Custom Quote
2. Customer

**Responsibilities:**

1. Accept X/Y user input
2. Run specific CC quote formula
3. Display expected quote
4. Display expected service duration

**Title – Enter payment information**

Actor – Customer

Scenario – System displays a box with optional text for specific instructions for the cleaning professional. Below, system displays secure credit card input fields. Customer enters credit card information. System stores data securely and automatically sets it as default credit card information for future bookings. Customer may edit in profile screen. Customer clicks “Book Now” button at the bottom of the screen. System officially assigns booking to selected cleaning professional. Customer is taken to default screen with a confirmation notification. System sends confirmation notification to cleaner app. System alerts main admin and specific CC admin, as well.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Payment
3. Cleaner
4. Push Notification
5. Email
6. Main Administrator
7. CC Administrator

**Responsibilities:**

1. Accept credit card information as input
2. Store information securely
3. Update customer profile information
4. Assign booking to cleaner
5. Send email confirmation to main admin
6. Send email confirmation to CC admin
7. Send push notification to cleaner
8. Display push notification confirmation to customer

**Title – Process and validate payment information**

Actor – System~?

Scenario – System processes and validates credit card information with Stripe (APIs~?). Email main admin of confirmation. If CC is declined, perform action.

[Extensions & Preconditions]

**Candidate objects:**

1. Payment
2. Stripe
3. Database
4. Email
5. Main Administrator

**Responsibilities:**

1. Process electronic payment
2. Validate electronic payment
3. Store data in database

**Title – Display current bookings**

Actor – Customer

Scenario – Customer clicks “Current Bookings” button in the default screen. Customer is taken to a list of ongoing and upcoming bookings. Customer can select any list element, which displays more specific booking information, including a “Cancel Booking” button at the bottom of each list element.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Booking List
3. Booking Information

**Responsibilities:**

1. Display bookings list
2. Display specific list element booking information

**Title – Cancel booking**

Actor – Customer

Scenario – Customer clicks “Cancel Booking” button inside a specific list element. Customer is taken to a screen with a box to input a reason, with a “Cancel Now” button at the end. Customer clicks button and is taken back to the default screen where a confirmation notification is displayed. System notifies main admin. [Cancellation policy?]

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Booking Cancellation
3. Push Notification
4. Booking List
5. Main Administrator
6. Cleaner

**Responsibilities:**

1. Display short customer cancellation form
2. Accept user input
3. Cleaner slot is freed up
4. Send notification to cleaner
5. Display confirmation notification to customer
6. Email main administrator

**Title – Receive in-app notifications**

Actor – Customer

Scenario – Customer clicks “Messages” button in the default screen. Customer is taken to a screen where the system displays a list of messages/notifications by date.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Push Notification

**Responsibilities:**

1. Display messages/notifications by date

**Title – Rate experience**

Actor – Customer

Scenario – System displays a “Rate Experience” notification 6 hours after service completion, with an option to select number of stars. Customer clicks number of stars and system stores data. Customer is taken back to the default screen, with updated booking status.

[Extensions & Preconditions]

**Candidate objects:**

1. Customer
2. Rate Experience
3. Push Notification
4. Booking Information

**Responsibilities:**

1. Display rating PN 6 hours after service
2. Accept rating user input
3. Store value and update database
4. Update booking status

**Title – Function without network connection**

Actor – System~? Customer app?

Scenario – System must continue to function smoothly without a network connection.

[Extensions & Preconditions]

**Candidate objects:**

1. Network

**Responsibilities:**

1. Customer app functions with or without a network connection

**Title – Store data in database**

Actor – System~?

Scenario – System stores all data (forms, geolocation, activity~, etc.) in third party software, such as Microsoft Azure or Amazon Web Services.

[Extensions & Preconditions]

**Candidate objects:**

1. Data
2. Database

**Responsibilities:**

1. Store all data in database
2. Ability to retrieve any data (SQL)
3. Display all data to main administrator

**// Title – Geo-track customers**

Actor – GPS system? Part of Xamarin?

Scenario – System tracks customer’s geolocation continuously while the application is running and stores data.

[Extensions & Preconditions]

**Candidate objects:**

**Responsibilities:**