

CSCC10
Phase 3 – Interactive Prototype

Usability Squad

Team Members:

Annanya Sharma, Bao Yang, Beier Mu, Faraz Malik, Ian Gregory, Kyle Lewis, Omar Patel

Contents:

- **URL of the interactive prototype** **3**
- **Tasks with description and step by step instructions** **3**
- **Evaluation methods for the next phase** **31**

Link to the interactive prototype:-

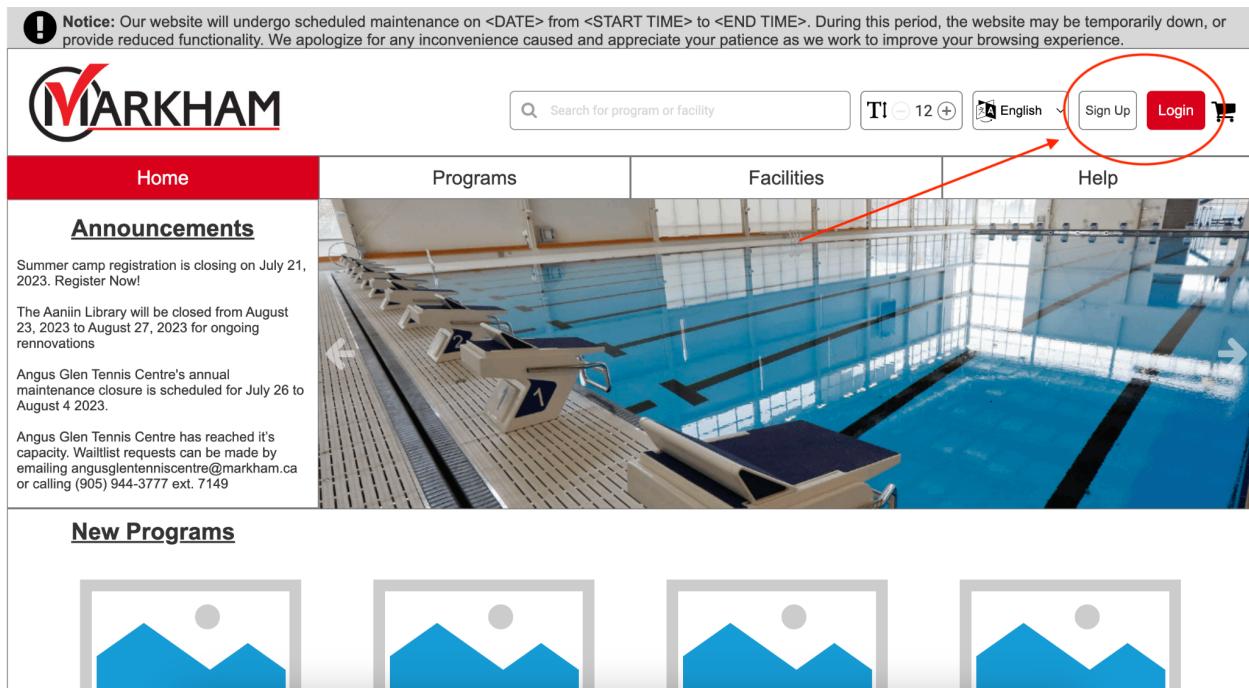
<https://8qi89p.axshare.com/>

Tasks:-

TASK 1: Registering and Logging in with Markham Recreation

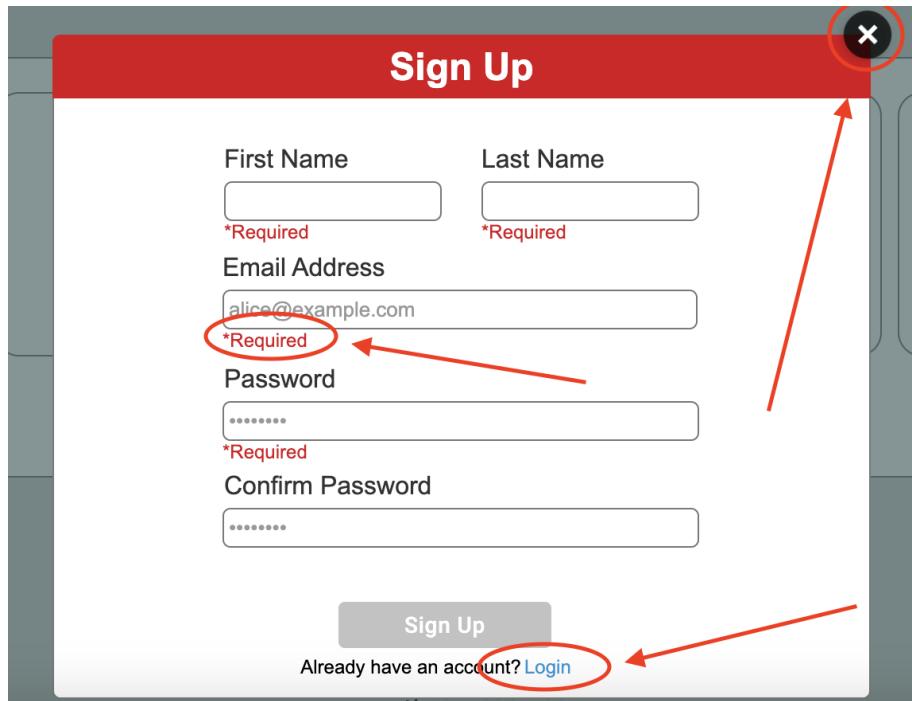
Gertrude is babysitting her 8-year-old granddaughter, Jade, for the summer. She wants to register for an account and then sign in to her account smoothly. The previous website requires existing users to sign in with a client barcode and account PIN; new users had to contact the City of Markham to set up their login information. Our design streamlines the registration and login process by following the steps below.

1. Gertrude opens the Markham E-Connect website and conveniently locates the sign-up button on the top right corner of any page on the website.



Step 2: Registering for an Account

2.1 Gertrude clicks the “Sign Up” button to create a new account with Markham Recreation. A pop-up appears where she must fill in the following information: first name, last name, email address, password, and password confirmation. The required fields are brought to her attention by being marked. If she did not intend to sign up, she have full control to go back to the previous page by clicking “x” to close the popup. If she already has an account, she can press the “Login” link and follow Step 3.



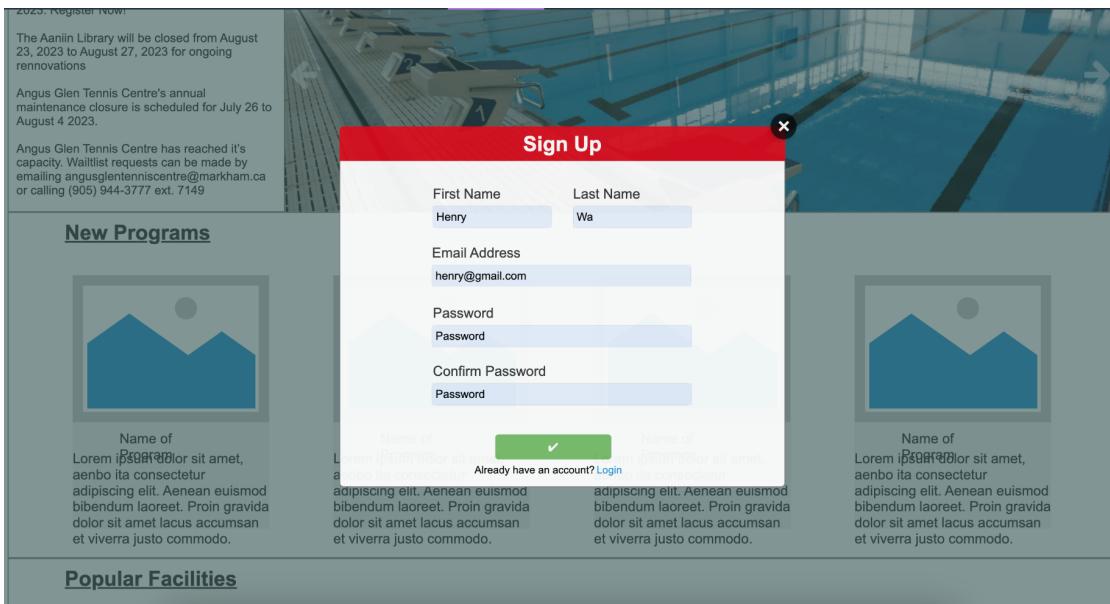
2.2 After Gertrude has filled out the information, if the passwords do not match, she is informed and the mistake must be corrected. The “Sign Up” button will then be enabled for her to click on.

The image consists of two side-by-side screenshots of a web-based sign-up form titled "Sign Up". Both screenshots show the following fields: First Name (Henry), Last Name (Wa), Email Address (aaaaaa), Password (1234567), and Confirm Password (initially 1231234, later changed to 1234567). A red arrow points from the error message "Passwords must match" (circled in red) in the first screenshot to the "Sign Up" button in the second screenshot, indicating that the button becomes active once the password is corrected.

2.3 After clicking the “Sign Up” button, if her provided email address is not valid, she will be informed right away. Gertrude must enter a valid email address and then press “Sign Up” again.

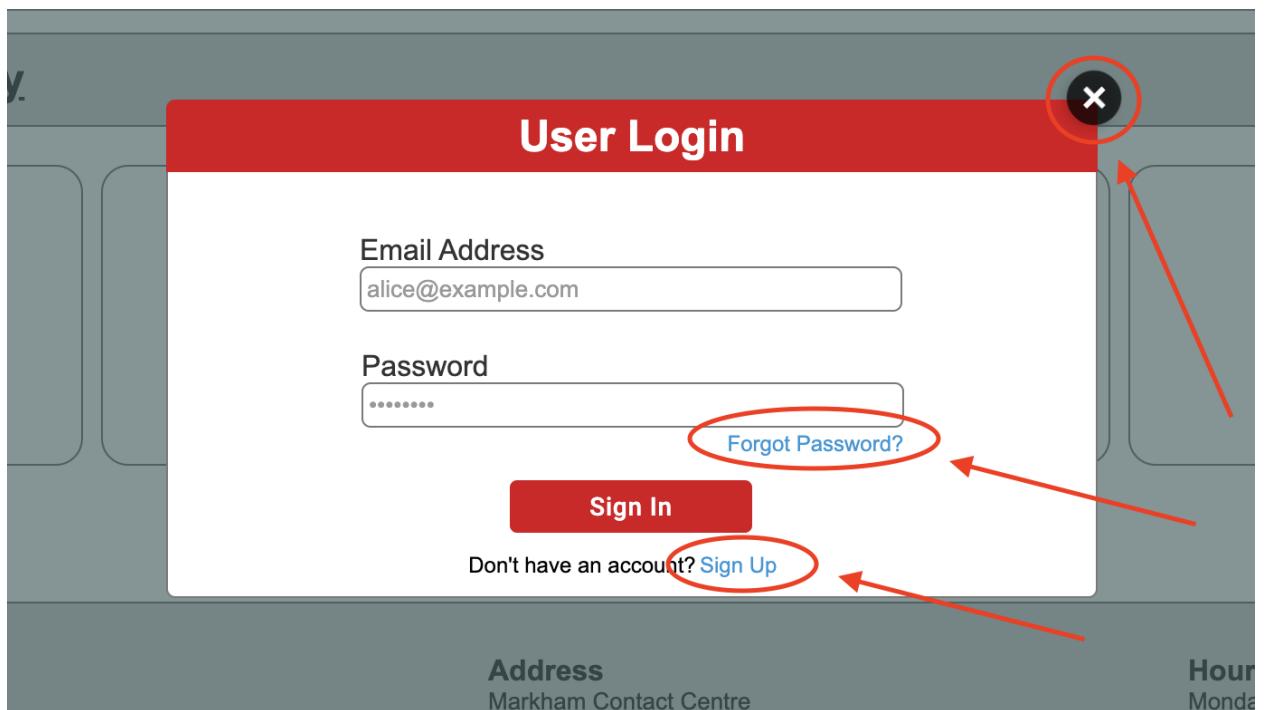
The image shows a single screenshot of a "Sign Up" form. The fields are: First Name (Henry), Last Name (Wa), Email Address (aaaaaa), Password (1234567), and Confirm Password (1234567). The "Email Address" field is circled in red with an arrow pointing to the error message "*Invalid email address" located directly below it. The "Sign Up" button is highlighted in red, indicating it is the target of the user's next click.

2.4 After entering the information correctly and clicking the “Sign Up” button, a green tick box is shown as confirmation that she has successfully signed up for an account. The pop-up box is automatically closed.

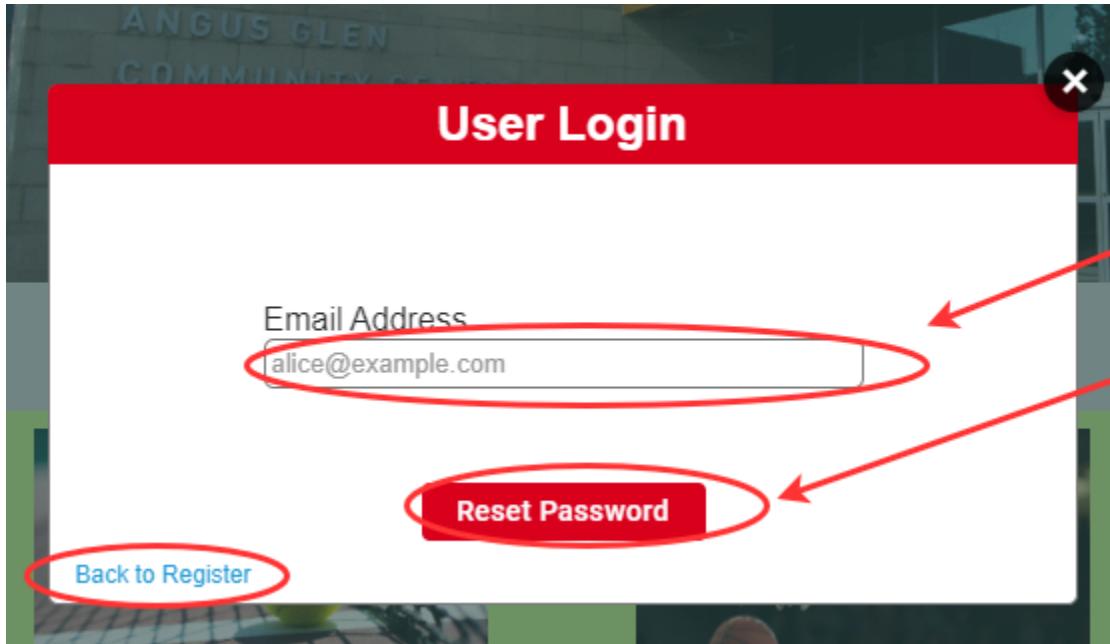


Step 3: Logging in to Account

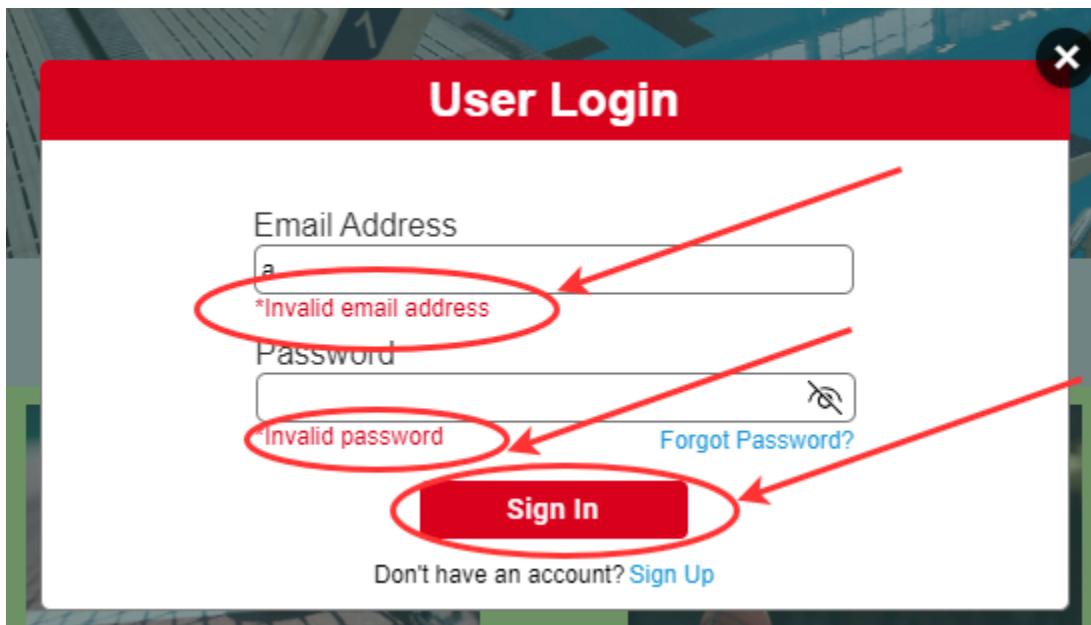
3.1 If Gertrude wants to log in into her account, she can do that by clicking on the “Login” button. A popup appears where she must enter her login credentials. If Gertrude doesn’t remember her password, she can click on the “Forgot Password?” link to set up a new one and move on to the next step. As a user, she has full control to go back to the previous page by clicking “x” to close the popup if she did not intend to log in. If she does not have an account, she can create one by clicking the “Sign Up” link at the bottom and following Step 2.



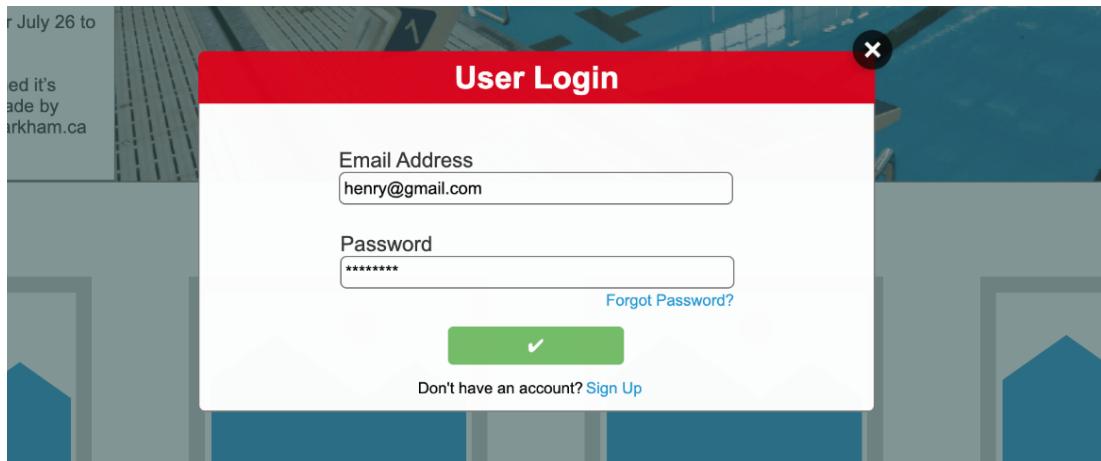
3.2 If Gertrude did not remember her password and clicked “Forgot Password” she is prompted to enter her account’s email address to receive an email to reset her password. She must input her email address and then press the “Reset Password” button. Once the password has been reset, she can click “Back to Register” to continue logging in.



3.3 After filling out the log in credentials, she clicks the “Sign Up” button. If the provided email address is not valid or the password is left blank, she will be informed. Gertrude must correct her mistake and then press “Sign In” again.



3.4 After entering the login information correctly and clicking the “Sign In” button, a green tick box is shown as confirmation that Gertrude has successfully logged into her account. The pop-up box is then automatically closed.



TASK 2: Browse, Filter and Register for Programs

Gertrude would like to enrol Jade in a community program suited to her age, interests and abilities.

1. Willing to try the recently redesigned booking system, Gertrude arrives on the Markham eConnect homepage.

Notice: Our website will undergo scheduled maintenance on <DATE> from <START TIME> to <END TIME>. During this period, the website may be temporarily down, or provide reduced functionality. We apologize for any inconvenience caused and appreciate your patience as we work to improve your browsing experience.

MARKHAM eConnect

Search for program or facility

12 English Sign Up Login

Home Programs Facilities Help

Announcements

Summer camp registration is closing on July 21, 2023. Register Now!

The Aaniin Library will be closed from August 23, 2023 to August 27, 2023 for ongoing renovations

Angus Glen Tennis Centre's annual maintenance closure is scheduled for July 26 to August 4 2023.

Angus Glen Tennis Centre has reached its capacity. Waitlist requests can be made by emailing angusglen@markham.ca or calling (905) 944-3777 ext. 7149

New Programs

Step 2: Searching programs coarsely by category or keyword

Plan 2a – Programs → Browse by category

- 2a.1** Gertrude clicks **Programs** in the navigation bar.

MARKHAM eConnect

Search for program or facility

12 English Sign Up Login

Home **Programs** Facilities Help

Announcements

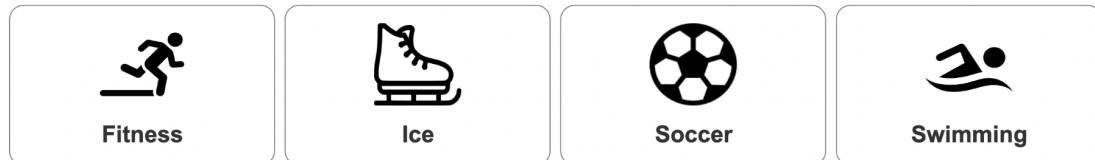
- 2a.2** Gertrude sees a keyword search box, and a list of categories to browse. As she is unsure exactly what Jade would be interested in doing, she scans the list of categories for inspiration.

The screenshot shows the MARKHAM eConnect website. At the top is a navigation bar with the logo "MARKHAM eConnect". To the right are search, language, sign up, login, and cart icons. Below the navigation bar is a horizontal menu with four items: "Home", "Programs" (which is highlighted in red), "Facilities", and "Help".

Programs

Find By Keyword

Browse By Category



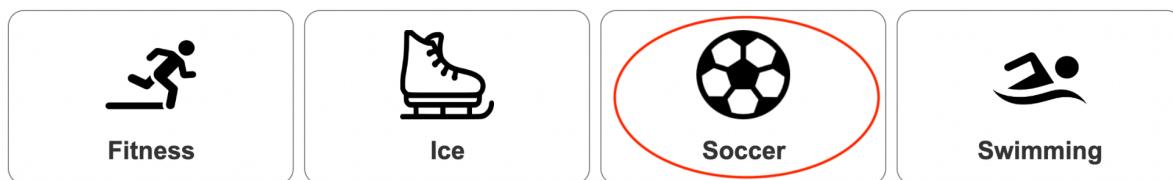
Customer Service
Phone number: 905.477.5530
Email: customerservice@markham.ca

Address
Markham Contact Centre
101 Town Centre Boulevard
Markham Ontario L3R 9W3

Hours of Operation
Monday to Friday: 8 AM - 5 PM
(excluding statutory holidays)

2a.3 Seeing the Soccer category, Gertrude remembers how Jade would enjoy playing soccer with her friends at recess. Gertrude asks Jade whether she would be interested in a soccer program. Jade says she would, and so Gertrude clicks this category.

Browse By Category



Plan 2b – Programs → Keyword search

2b.1 Gertrude clicks **Programs** in the navigation bar.

The screenshot shows the MARKHAM eConnect website. At the top is a navigation bar with the logo "MARKHAM eConnect". To the right are search, language, sign up, login, and cart icons. Below the navigation bar is a horizontal menu with four items: "Home", "Programs" (which is circled in red), "Facilities", and "Help". A banner below the menu displays the word "Announcements".

2b.2 Gertrude sees a **Search for program by keyword** box at the top of the page.

The screenshot shows the MARKHAM eConnect website. At the top, there is a navigation bar with links for Home, Programs (which is the active tab), Facilities, and Help. On the far right of the navigation bar are buttons for Sign Up, Login, and a shopping cart icon. To the left of the navigation bar is the MARKHAM eConnect logo. Above the navigation bar is a search bar labeled "Search for program or facility". Below the search bar are several other buttons: a magnifying glass icon, a font size selector (Tl 12 +), a language selector (English), and a sign up button.

Programs

Find By Keyword

Gertrude already knows she is looking for a soccer program, so she enters “soccer” there.

Find By Keyword

 ×

Plan 2c – Keyword search from homepage

2c.1 Gertrude sees **Search for program or facility** above the navigation bar.

The screenshot shows the MARKHAM eConnect website with a maintenance notice at the top: "Notice: Our website will undergo scheduled maintenance on <DATE> from <START TIME> to <END TIME>. During this period, the website may be temporarily down, or provide reduced functionality. We apologize for any inconvenience caused and appreciate your patience as we work to improve your browsing experience." Below the notice is the MARKHAM eConnect logo. The navigation bar includes Home, Programs, Facilities, and Help. A red box highlights the "Search for program or facility" input field. The "Announcements" section is visible below the navigation bar.

2c.2 Gertrude knows she is looking for a soccer program, so she enters “soccer” there.

The screenshot shows the MARKHAM eConnect website with a maintenance notice at the top. The "Search for program or facility" input field has "soccer" typed into it. The rest of the interface is identical to the previous screenshot, including the navigation bar with Home, Programs, Facilities, and Help, and the "Announcements" section below.

Step 3: Refining the program search

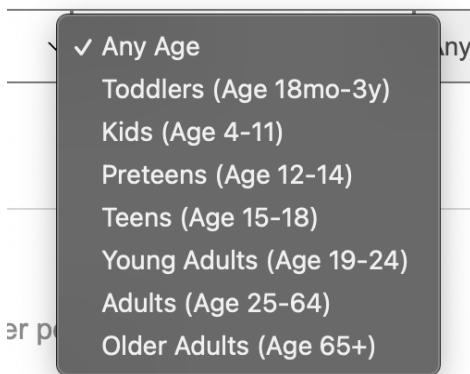
3.1 By now, Gertrude has arrived at the Search Results page, with “Soccer” as the keyword. Results for programs matching the keyword are displayed, each with a short description.

The screenshot shows the Markham eConnect website interface. At the top, there is a navigation bar with links for Home, Programs (which is highlighted in red), Facilities, and Help. On the right side of the top bar are buttons for Sign Up, Login, and a shopping cart icon. Below the top bar is a search bar with the placeholder "Search for program or facility". To the right of the search bar are buttons for accessibility (Tl 12 +), language (English), and sign up. A "Login" button is also present. The main content area is titled "Search Results" and shows three program listings for "Soccer": "Preteen Indoor Soccer", "Preteen Indoor Soccer League", and "Preteen Outdoor Soccer". Each listing includes a small thumbnail image of a soccer ball, the program name, a brief description, and the age group "Ages 12-14".

3.2 Gertrude would like to only see programs for which her granddaughter could register. Looking for a way to filter by age, she notices the dropdown next to the search bar labeled **Any Age**.

This screenshot shows the same website interface as above, but with a red oval highlighting the "Any Age" dropdown menu in the search bar. The search bar also contains the word "Soccer". The rest of the interface, including the navigation bar and the search results, remains the same.

3.3 Gertrude clicks the **Any Age** dropdown to display the list of age filter options.



3.4 Gertrude chooses the “Kids” category, as Jade is 8 years old.



3.5 The **Apply Filters** button on the far right has become enabled. Gertrude clicks this button to perform the search again with the age filter applied.

④ Programs

A screenshot of a search interface. At the top left is a search bar with the text "Soccer". To its right are three filter buttons: "Programs" (disabled), "Kids (Age 4-11)" (disabled), and "Any Facility Type" (disabled). On the far right is a red-outlined button labeled "Apply Filters".

3.6 The page reloads, and a new batch of search results is displayed.

④ Programs

<input type="text"/> Soccer	<input type="button"/>	Programs	<input type="button"/>	Kids (Age 4-11)	<input type="button"/>	Any Facility Type	<input type="button"/>	Apply Filters
-----------------------------	------------------------	----------	------------------------	-----------------	------------------------	-------------------	------------------------	---------------

Search Results

	Kids' Indoor Soccer	Ages 6–11
1-hour casual games of soccer for school-age children. No experience necessary. Indoor running shoes required.		
	Kids' Outdoor Soccer	Ages 6–11
1-hour casual games of soccer for school-age children. No experience necessary. Outdoor running shoes required. Weather permitting.		

3.7 Gertrude clicks **Kids' Indoor Soccer**.

Search Results

	Kids' Indoor Soccer	Ages 6–11
1-hour casual games of soccer for school-age children. No experience necessary. Indoor running shoes required.		
	Kids' Outdoor Soccer	Ages 6–11

Step 4: Registering for the chosen program

4.1 A new page is displayed with more details about the chosen program.

Home **Programs** Facilities Help

[⊕ Search results](#)

Kids' Indoor Soccer

Ages 6–11

1-hour casual games of soccer for school-age children. No experience necessary.
Indoor running shoes required.



Dates & Times

Afternoon Indoor Soccer \$15	Days: Mon, Wed	Please log in to add to your cart	Login
Times: 4 pm - 5 pm	Location: Aaniin Community Centre	Availability: 6 left	
Evening Indoor Soccer \$15	Days: Tue, Thu	Please log in to add to your cart	Login
Times: 6 pm - 7 pm	Location: Aaniin Community Centre	Availability: 6 left	

4.2 Gertrude checks the available dates and times, and concludes that the afternoon games on Mondays and Wednesdays are the best option for Jade.

Dates & Times

Afternoon Indoor Soccer \$15	Days: Mon, Wed	Please log in to add to your cart	Login
Times: 4 pm - 5 pm	Location: Aaniin Community Centre	Availability: 6 left	
Evening Indoor Soccer \$15	Days: Tue, Thu	Please log in to add to your cart	Login
Times: 6 pm - 7 pm	Location: Aaniin Community Centre	Availability: 6 left	

- 4.3 By reading the right side of the listing, Gertrude sees that she must log in to proceed with registration. She clicks **Login**.

Afternoon Indoor Soccer | \$15

Times: 4 pm - 5 pm **Days:** Mon, Wed
Location: Aaniin Community Centre **Availability:** 6 left

Please log in to add to your cart

Login

- 4.4 Gertrude follows the process outlined in **Step 3 of Task 1** to log in to her account.

- 4.5 The page reloads, and an **Add to Cart** button appears. Gertrude clicks this.

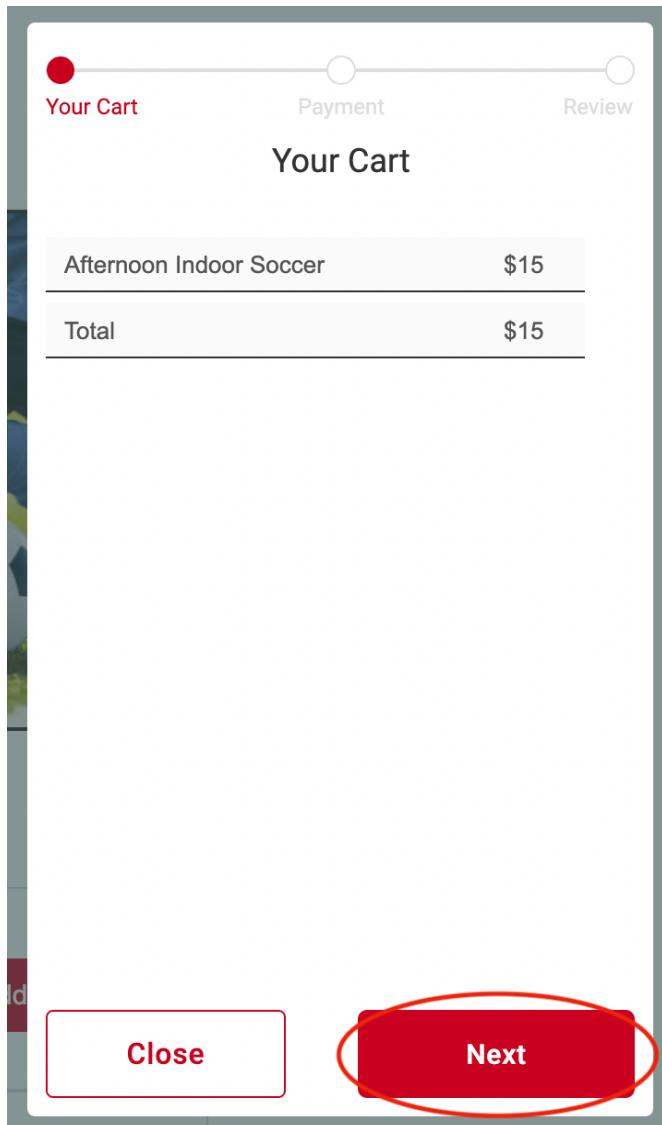
Afternoon Indoor Soccer | \$15

Times: 4 pm - 5 pm **Days:** Mon, Wed
Location: Aaniin Community Centre **Availability:** 6 left

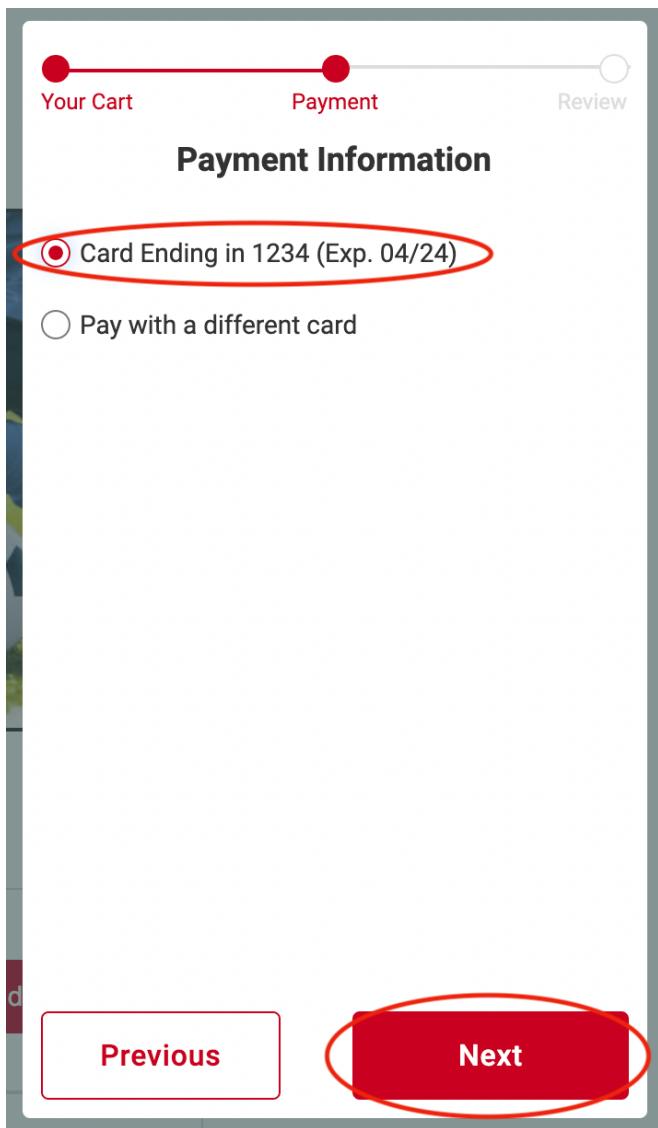
Add To Cart

Step 5: Checking out

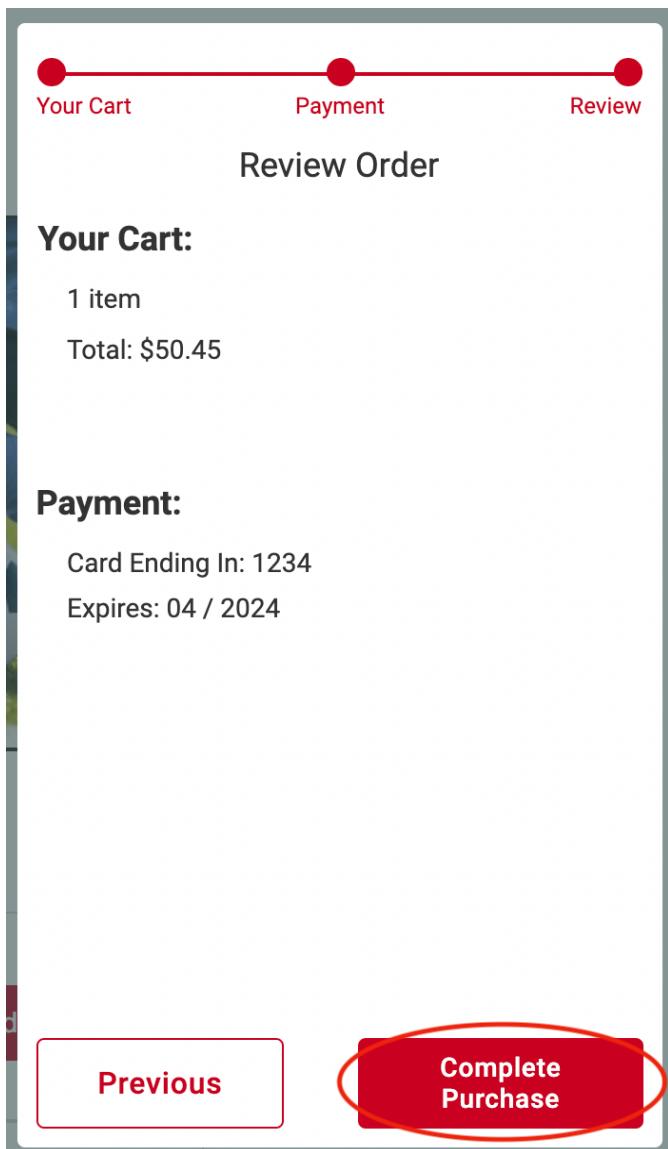
5.1 The program has been added to Gertrude's cart, which is now displayed as an overlay on the page. Satisfied, Gertrude clicks **Next** to continue to the checkout process.



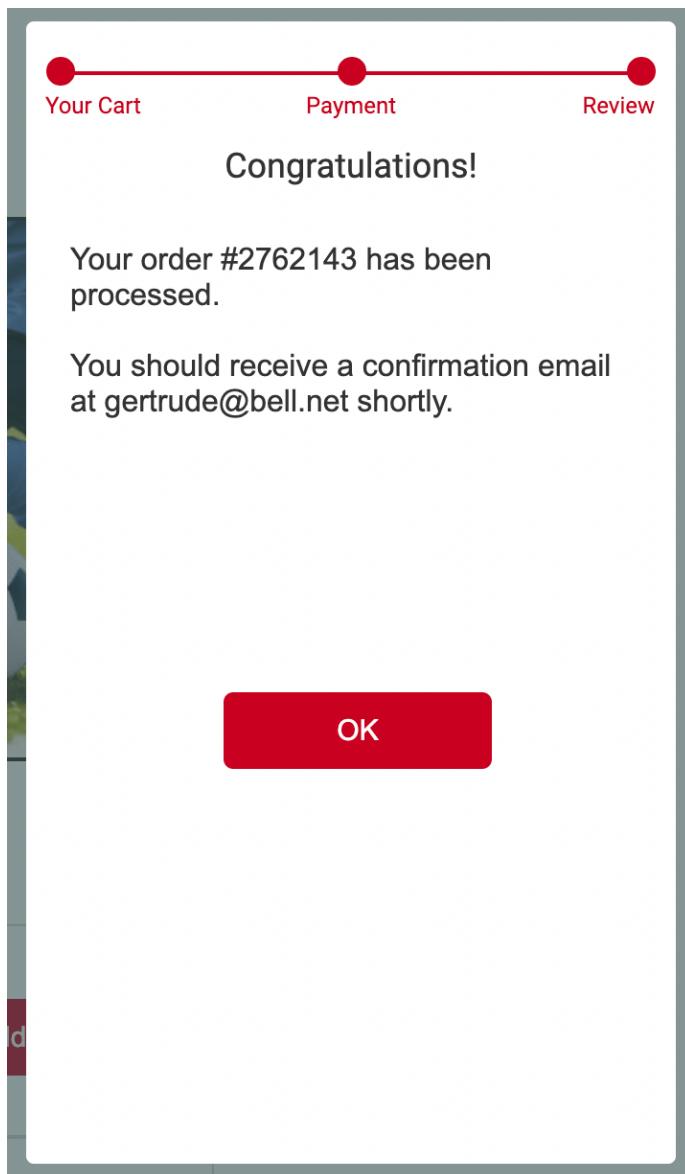
5.2 The **Payment Information** screen appears. Conveniently, Gertrude's credit card information is already saved in the system, so she selects it and clicks **Next**.



5.3 Finally, the **Review Order** screen appears. Gertrude reviews the information. As it is correct, she clicks **Complete Purchase**.



- 5.4** The order is processed, and Gertrude is shown a confirmation message with her order number. She also receives the confirmation message at her account's registered email address.



- 5.5** At this point, Gertrude may click **OK** and continue using the Markham eConnect website. Alternatively, she can simply leave the site (using her web browser).

TASK 3: Search for a facility and book one in a desired time slot

Jacky wants to play tennis with his little brother next week. He needs to book a court for the two of them before the spots are all gone!

1. Jacky opens the Markham eConnect website.

To find a facility by activity category, he can follow **Plan 2a**.

Or, to find a specific facility he has in mind, he can follow **Plan 2b** or **Plan 2c**.

Step 2: Search for a Facility

Plan 2a – Facilities → Browse by category

2a.1 Jacky clicks on the “Facilities” button, located on the top navigation bar.

! Notice: Our website will undergo scheduled maintenance on <DATE> from <START TIME> to <END TIME>. During this period, the website may be temporarily down, or provide reduced functionality. We apologize for any inconvenience caused and appreciate your patience as we work to improve your browsing experience.

The screenshot shows the Markham eConnect website. At the top, there is a notice about scheduled maintenance. Below it is the navigation bar with four tabs: Home (red background), Programs, Facilities (circled in red), and Help. To the right of the tabs is a search bar, a language selection dropdown set to English, a sign-up link, and a login button. Below the navigation bar is a large image of an indoor swimming pool with lane lines. On the left side of the page, there is a sidebar with sections for Announcements, New Programs, and a list of upcoming events.

2a.2 Jacky selects the category of facility he is looking for.

The screenshot shows the MARKHAM eConnect website with a navigation bar at the top. The 'Facilities' tab is highlighted in red. Below the navigation bar, there's a search section titled 'Search Facilities' with a 'Find By Keyword' input field containing 'Angus Glen'. A 'Browse By Category' section follows, featuring icons for Fields, Ice Rinks, Library Space, Pools, and Tennis Courts. The 'Tennis Courts' icon is circled in red.

2a.3 He then selects a desired facility from the search results.

The screenshot shows the MARKHAM eConnect website with the 'Facilities' tab selected. A search bar at the top contains 'Tennis Courts'. The main content area displays a 'Search Results' section for the Angus Glen Tennis Centre. A large red oval highlights the entire card for the Angus Glen Tennis Centre, which includes a thumbnail image of a tennis court and a detailed description of the facility.

Plan 2b – Facilities → Find By Keyword

2b.1 Jacky clicks on the “Facilities” button, located on the top navigation bar.

The screenshot shows the MARKHAM eConnect website. At the top, there is a notice about scheduled maintenance. Below the notice is the logo "MARKHAM eConnect". To the right of the logo are several buttons: a search bar, a user icon with "12", a language dropdown set to "English", a "Sign Up" button, a "Login" button, and a shopping cart icon. The top navigation bar has four main categories: "Home", "Programs", "Facilities" (which is circled in red), and "Help". On the left side, there is a sidebar with "Announcements" and "New Programs". The main content area features a large image of an indoor swimming pool with lane lines and starting blocks.

2b.2 Jacky finds the facilities keyword search bar, and enters his desired keywords to search for the facilities relating to what he is looking for.

The screenshot shows the "Search Facilities" page of the MARKHAM eConnect website. At the top, there is a "Find By Keyword" button and a search input field containing "Angus Glen", which is circled in red. Below the search bar is a "Browse By Category" button. The page displays five categories with icons and labels: "Fields" (soccer field icon), "Ice Rinks" (ice rink icon), "Library Space" (book icon), "Pools" (swimming pool icon), and "Tennis Courts" (tennis racket and ball icon). The "Fields" category is highlighted with a blue background.

2b.3 He then selects the desired facility from the search results.

The screenshot shows the Markham eConnect website with a red oval highlighting the search result for the Angus Glen Tennis Centre. The search bar at the top contains the text "Tennis Courts". Below it, the "Facilities" tab is selected. The search results page displays the "Angus Glen Tennis Centre" entry, which includes a thumbnail image of a blue mountain icon, the facility name, and a brief description of its features.

Plan 2c – Top-Bar Search

2c.1 Jacky clicks on the search bar located on the top of the page. He then enters keyword(s) that correspond with the facility he wants to find.

The screenshot shows the Markham eConnect website with a red oval highlighting the search bar. The search bar contains the text "Angus Glen". The rest of the interface, including the navigation menu and facility details, is visible below the search bar.

2b.3 Jacky selects the desired facility from the search results.

The screenshot shows the Markham eConnect website interface. At the top, there is a navigation bar with links for Home, Programs, Facilities (which is highlighted in red), and Help. On the right side of the header are buttons for a search bar, user profile (Tl - 12 +), language selection (English), sign up, login, and a shopping cart. Below the header, a search bar displays the query "Tennis Courts". Underneath the search bar, there is a section titled "Search Results" which lists the "Angus Glen Tennis Centre". A large red oval highlights this listing. The listing includes a thumbnail image of a tennis court, the facility name, and a brief description: "The 27,810-square-foot, wheelchair accessible, indoor tennis facility is located next to the Angus Glen Community Centre and Library on Major Mackenzie Drive East between Warden Avenue and Kennedy Road. Open since 2011, this facility features four indoor hard courts with reception area, a fully accessible 4,200-square-foot member's lounge with viewing gallery, kitchenette, change rooms and washrooms. For those interested in improving their skills, the Tennis Centre offers introductory group lessons plus private and semi-private lessons. Summer and March Break tennis camp programs are also available."

Step 3: Book the facility in a desired timeslot

3.1 Jacky views the scheduling form and selects a date, start time and end time to schedule his booking.

3.1.1 Jacky first clicks the **Calendar** drop down, and selects a month and day from the calendar popup.

The screenshot shows a website interface for booking a facility. At the top, there is a navigation bar with links for Home, Programs, Facilities (which is highlighted in red), and Help. Below the navigation bar, there is a search bar labeled "Search results". The main content area features a facility listing for "Aaniin Community Centre Pool" located at "5665 14th Ave" with a rate of "25/hr". A descriptive text block provides information about the facility, mentioning its name means "hello" or "welcome" in Ojibway, and its purpose to celebrate Canada's 150th anniversary. To the right of this text is a placeholder box with the message "Sorry, no image available" and a large X mark. Below the facility listing is a section titled "Dates & Times" with a "Calendar" button and a "Pick a date" input field. A red arrow labeled "1" points to the calendar icon. Another red arrow labeled "2" points to the date selection input field. A calendar for July is displayed, showing days from 01 to 31. The entire screenshot is framed by a thick black border.

3.1.2 After selecting the date, he picks a **Start Time** and **End Time**. If the time slot is available, **Available** is displayed below.

The screenshot shows a web-based booking system for the Aaniin Community Centre Pool. At the top, there is a navigation bar with links for Home, Programs, Facilities (which is highlighted in red), and Help. Below the navigation bar, there is a search results section with a magnifying glass icon and the text "Search results". The main title is "Aaniin Community Centre Pool" with the address "5665 14th Ave" and a rate of "Rate: 25/hr". A descriptive paragraph about the facility follows. To the right, there is a placeholder box with a large "X" and the text "Sorry, no image available". Below this, the "Dates & Times" section is shown. It includes a calendar pickers for "Pick a date" set to "August 14 2023", and dropdown menus for "Start Time" (set to "10 : 30 AM") and "End Time" (set to "11 : 30 AM"). Between these dropdowns is a green button labeled "Available". At the bottom of the "Dates & Times" section is a blue button labeled "Schedule Facility". Red arrows point from the text "Available" and the "Schedule Facility" button to their respective counterparts in the screenshot.

3.2 Jacky clicks the **Schedule Facility** button to book the facility.

The screenshot shows the MARKHAM eConnect website interface. At the top, there is a navigation bar with links for Home, Programs, Facilities (which is highlighted in red), and Help. There are also search, language selection (English), sign-up, and login buttons. Below the navigation, a search results link is visible. The main content area displays information about the Aaniin Community Centre Pool, including its address (5665 14th Ave) and rate (\$25/hr). A large descriptive text block details the pool's history and features. To the right of this text is a placeholder image area with a 'Sorry, no image available' message. Below this, the 'Dates & Times' section allows users to pick a date (August 09 2023), start time (8:21 PM), and end time (10:21 PM). A green 'Available' status is shown. A blue 'Schedule Facility' button is at the bottom of this section, circled in red. At the bottom of the page, there is a footer with sections for Customer Service, Address, and Hours of Operation, along with copyright information.

Aaniin Community Centre Pool

5665 14th Ave Rate: \$25/hr

Large, modern pool located inside Aaniin Community Centre. The name "Aaniin," pronounced [ah-nee], means "hello" or "welcome" in Ojibway. The name was chosen to welcome Markham's many diverse communities, to celebrate Canada's 150th anniversary of Confederation in 2017, and in honour of our First Nations people. Aaniin Community Centre & Library is the City's latest facility. The 122,000-square-foot, fully accessible facility is located on more than 13 acres of land and has state-of-the-art amenities and features.

Dates & Times

Calendar
Pick a date
August 09 2023

Start Time End Time
Pick a time Pick a time
8:21 PM 10:21 PM

Available

Schedule Facility

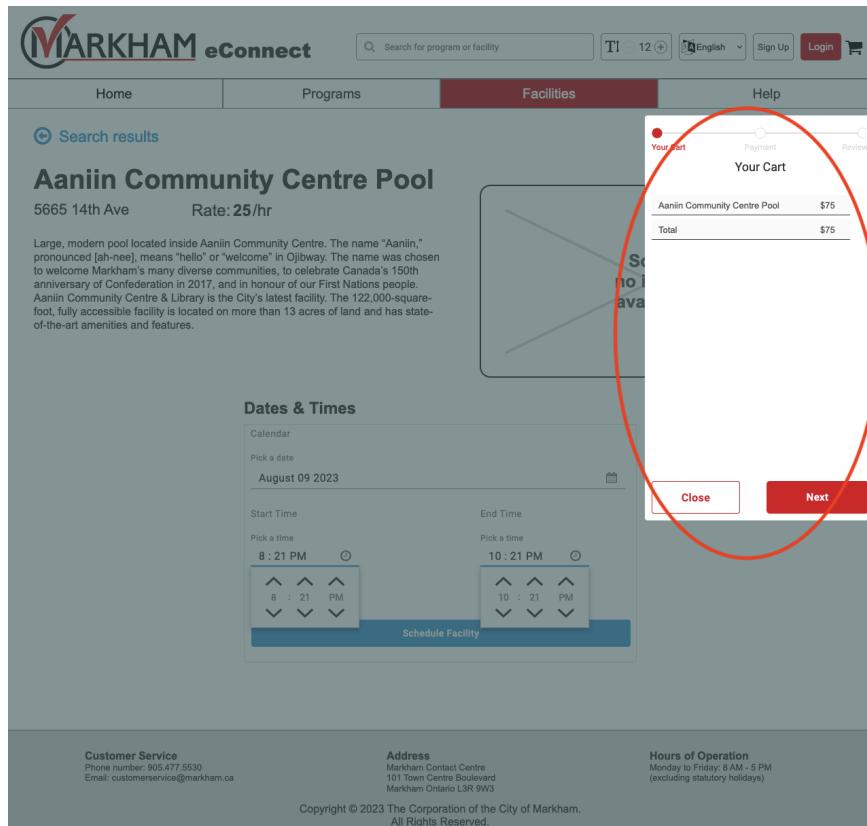
Customer Service
Phone number: 905 477 5530
Email: customerservice@markham.ca

Address
Markham Contact Centre
101 Town Centre Boulevard
Markham Ontario L3R 9W3

Hours of Operation
Monday to Friday: 8 AM - 5 PM
(excluding statutory holidays)

Copyright © 2023 The Corporation of the City of Markham.
All Rights Reserved.

- 3.3** After booking the facility, Jacky notices the **Cart** overlay appear in the top-right corner.



Step 4: Checking out

- 4.1** Jacky follows the process outlined in **Step 5 of Task 2** to complete the checkout process.
4.2 Jacky's facility is booked, and he is content.

Evaluation Methods

We will have 3 different parts for our evaluation: A semi-structured interview on a subset of participants, direct observation of these participants using the prototype, and a usability questionnaire given to all participants. In all of these parts, all 3 of our prototyped tasks will be tested, giving us redundant data in different forms, allowing for triangulation. All users will sign an informed consent form agreeing to the anonymous data being collected.

The 3 specific tasks that participants will attempt to accomplish will be:

1. Register for an account
2. Find, book and pay for a soccer program for an 8 year old child (while logged in)
3. Book a Tennis facility for tomorrow at 5:00 PM

Firstly, selected participants will use the prototype to complete the selected tasks under direct observation. This will involve screen recording and voice recording, with participants instructed to ‘think-out-loud’ during the test. Participants will be told only what tasks they must do, with no clarification other than a repetition of the instruction. The data that could be extracted could include:

- Number of clicks/actions needed to perform the tasks
- Amount of time needed to complete the task
- The total amount of ‘errors’ (actions taken that do not increase progress to goal)
- Any common pain points/sources of confusion for the participants

To aid in this, a cognitive walkthrough can be used for key actions for the given tasks. This would include:

- Clicking the login button (Task 1)
- Clicking the ‘Programs’ tab (Task 2)
- Applying the correct age filter (Task 2)
- Clicking the ‘Facilities’ tab (Task 3)

When this portion of the evaluation is done, a small semi-structured usability interview will be conducted. The purpose of this is to have the participant explain their pain points and what they enjoyed about using the interface, in order to give insights into any aspects of the design that could not be captured by observations or questionnaires. This should take around 5 minutes.

Finally, there will also be a brief questionnaire at the end (taking around 5 minutes to complete). For participants not being interviewed, they will still attempt all 3 tasks but with a lenient timer (2 minutes) and clear success indicators (which can be implemented in the prototype), then they will do this step. The questionnaire will be mostly Likert-type questions, aiming for quantitative data on usability heuristics as described in Neilson Norman’s ‘10 Usability Heuristics for UI Design’.