

Project: Restock, Step 6 (Portfolio)

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<https://projectrestock.herokuapp.com/index.html>

Executive Summary:

Upgrades from Step 5 Draft - Step 6 Final:

- Added a filter for Household_Inventories so that each households inventories can be viewed individually.
- Added styling with bootstrap
- Changed hosting to heroku and database to clearDB
- Changed edit page so user can see all information of row, not just the attribute being updated

Upgrades from Step 4 - Step 5:

- Made hours_open attribute in Stores nullable
- Modularized app.py into a views folder using Flask blueprints
- Changed id_household in Households_Members to be nullable
- Updated the SQL queries to reflect CRUD functionality that was happening on the HTML pages
- Updated boolean attributes using IF queries to make the data more readable
- Added several dropdown menus using J2 templating to HTML forms found on all HTML pages
- Added CRUD functions to all entities/all pages that we intended to incorporate

Upgrades from Step 3 - Step 4:

- Added CRUD for Households page, corresponding app.py and J2 templates to add create, retrieve, update, and delete functionalities to Households page.
- Linked all html pages from index.html
- Made a nullable relationship between Household_Inventories and Household_Items. Item in Household Inventory can be NULL.
- Made a nullable relationship between Stores and Item_Types in Store_Inventories. Item Type in Store Inventory can be NULL.
- Changed items and type in Household Inventories Queries to show names of items not id in Data Manipulation Queries file.

Upgrades from Step 2 - Step 3:

- We fixed naming inconsistencies in outline, schema, and ERD. We changed samples in Households to all be from the same area as the ones in Stores so it aligns with our overview description. Also re-added the data sample image from Household_Items to include the last 2 rows that were cut off before and data sample image from Households with updated addresses.
- We updated all the naming to match the changes we made in the schema (made all attributes lowercase, singular) and added appropriate CASCADE operations.

Upgrades from Step 1 - Step 2:

- Updated the overview with more clearly defined entities and logic. Fixed various naming inconsistencies between the outline and the ERD. Based on Gregory Monteleone's feedback.
- Added a Household entity. The Household entity has a 1:M relationship with Household Members and a 1:M relationship with Household Items. Based on Gregory Monteleone's and Robin Purvis' feedback.

Project Outline:

No more store run planning! Restock keeps track of what **Household Items** are running low in **Households** and lets **Household Members** know exactly what they need to get on their next run to the **Stores**. Household Members can create, read, update, and delete **Household Inventory** from a list of **Household Items** for their home. Each Household Member can view a list of **Item Types** found in each store in order to find items to restock. Items cannot be found in Stores directly. When it comes time to go for a restocking run, Household Members will need to search through Item Types of the Stores they're shopping. Item Types are categorized as one of 10 different types such as cleaning supplies, toiletries, and groceries. Restock will keep track of 100 Household Items for up to 50 Households that live in a small town where 15 Stores reside.

Database Outline:

Households - records details of each household

- id_household: int, auto_increment, unique, not NULL, PK
- name: VARCHAR(45), not NULL
- address: VARCHAR(145), not NULL
- **Relationship:**
 - a 1:M relationship between Households and Household_Members is implemented with id_household as a FK inside of Household_Members.

Household_Members - records details of household member

- id_household_member: int, auto_increment, unique, not NULL, PK
- id_household: int, FK
- name: VARCHAR(45), not NULL
- runner_status: TINYINT, not NULL
- **Relationship:**
 - a 1:M relationship between Household and Household_Member is implemented with id_household as a FK inside of Household_Members.

Household_Inventories - records details of items contained in a household

- id_household_inventory: int, auto_increment, unique, not NULL, PK
- id_household: int, FK, not NULL
- id_item: int, FK
- amount_left: VARCHAR(45), not NULL
- restock_status: TINYINT, not NULL
- **Relationship:**
 - a M:N relationship between Household and Household_Items is implemented with an intersection table

Household_Items - household items to be kept track of

- id_item: int, auto_increment, unique, not NULL, PK
- id_item_type: int, FK, not NULL
- name: VARCHAR(45), not NULL

- best_if_used_by: DATE, not NULL
- **Relationship:**
 - a M:1 relationship between Household_Items and Item_Types is implemented with id_itemType as a FK inside of Household_Items.

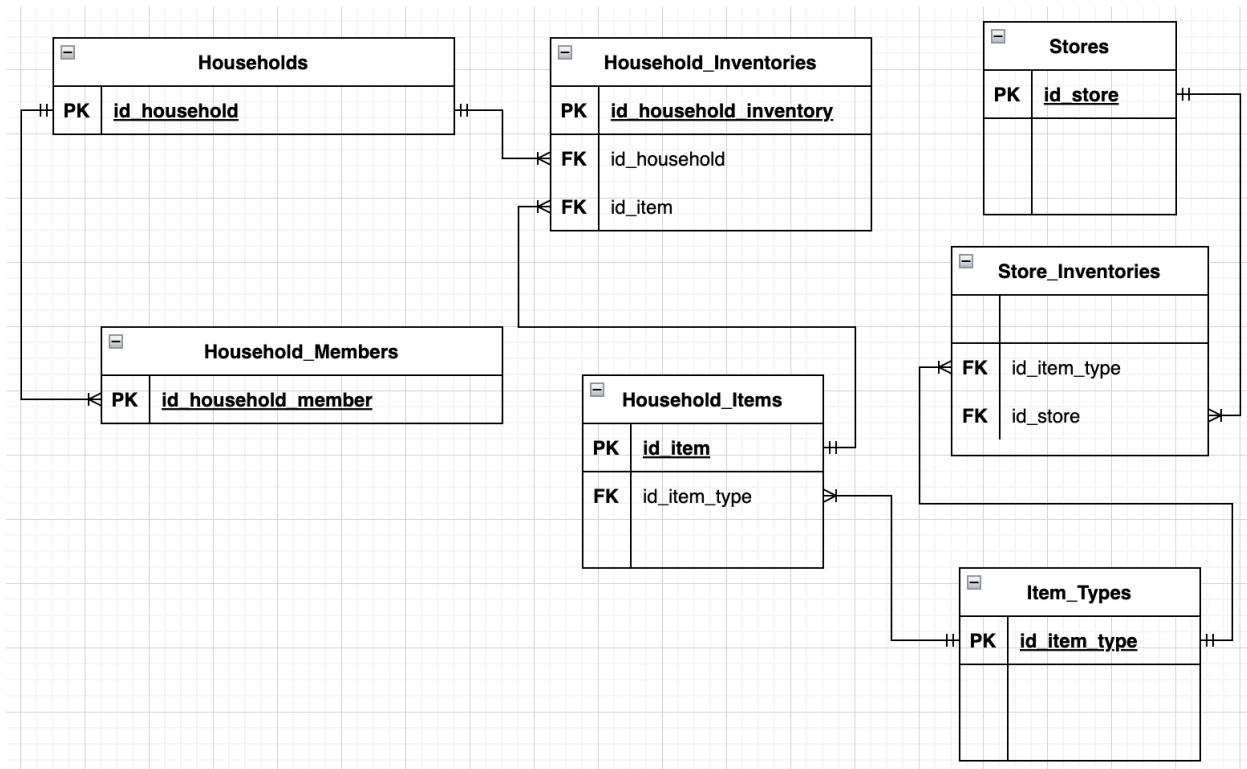
Item_Types - category of item (cleaning supplies, toiletries, groceries, etc)

- id_item_type: int, auto_increment, unique, not NULL, PK
- name: VARCHAR(45), not NULL
- **Relationship:**
 - a 1:M relationship between Item_Types and Household_Items is implemented with id_item as a FK inside of Item_Types.
 - a M:N relationship between Item_Types and Stores is implemented with an intersection table

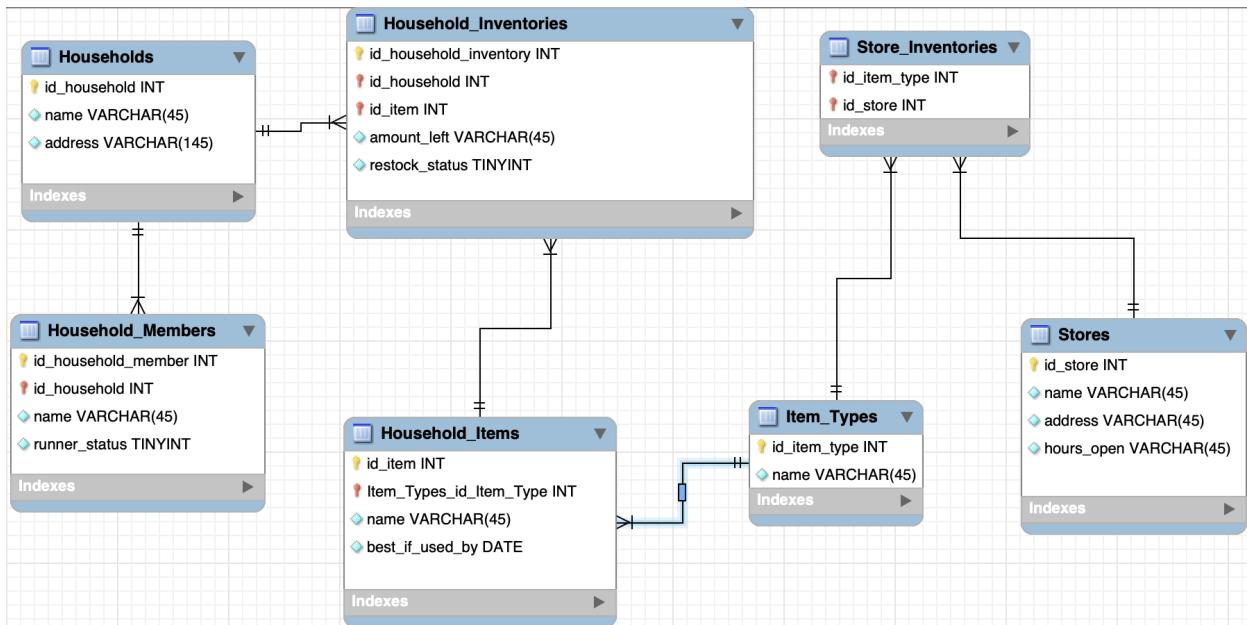
Stores - what stores carry which item types

- id_store: int, auto_increment, unique, not NULL, PK
- name: VARCHAR(45), not NULL
- address: VARCHAR(45), not NULL
- hours_open: VARCHAR(45)
- **Relationship:**
 - a M:N relationship between Item_Types and Stores is implemented with an intersection table

ER Diagram:



Schema:



Sample data from each table in schema:

MariaDB [cs340_bangd]> select * from Households;

id_household	name	address
1	Family	101 Zip Blvd, Richland Hills, Texas, USA, 75890
2	Couple	102 Zip Blvd, Someplace City, Texas, USA, 75891
3	Roommates	103 Zip Blvd, Psuedocode Woods, Texas, USA, 75892

MariaDB [cs340_skinneem]> select * from Household_Members;

id_householdMember	id_household	name	runner_status
1	1	Jane Doe	1
2	1	John Doe	0
3	1	Son Doe	0
4	1	Daughter Doe	0
5	2	Maureen Lady	1
6	2	Barbara Waddingham	0
7	3	Nathaniel Archibald	1
8	3	Alex Lyndell	0
9	3	Sasha Grace	0

9 rows in set (0.001 sec)

```
MariaDB [cs340_skinneem]> select * from Household_Inventories;
+-----+-----+-----+-----+-----+
| id_householdInventory | id_household | id_item | amount_left | restock_status |
+-----+-----+-----+-----+-----+
| 1 | 1 | 16 | Empty | 1 |
| 2 | 1 | 2 | Fully Stocked | 0 |
| 3 | 1 | 12 | Empty | 1 |
| 4 | 1 | 15 | Empty | 1 |
| 5 | 1 | 10 | Running Low | 1 |
| 6 | 2 | 3 | Still Plenty | 0 |
| 7 | 2 | 7 | Running Low | 1 |
| 8 | 2 | 8 | Empty | 1 |
| 9 | 3 | 4 | Still Plenty | 0 |
| 10 | 3 | 0 | Running Low | 1 |
| 11 | 3 | 5 | Empty | 1 |
| 12 | 3 | 1 | Empty | 1 |
+-----+-----+-----+-----+
12 rows in set (0.001 sec)
```

```
MariaDB [cs340_bangd]> select * from Household_Items;
```

```
+-----+-----+-----+-----+
| id_item | id_item_type | name | best_if_used_by |
+-----+-----+-----+-----+
| 1 | 1 | Toilet Paper | 2022-11-26 |
| 2 | 1 | Toothpaste | 2022-12-31 |
| 3 | 1 | Shampoo | 2024-04-11 |
| 4 | 3 | Milk | 2022-05-07 |
| 5 | 3 | Coffee Beans | 2028-10-10 |
| 6 | 3 | Bananas | 2022-05-02 |
| 7 | 3 | Yogurt | 2022-05-12 |
| 8 | 5 | Dog Food | 2022-07-15 |
| 9 | 5 | Doggy Bags | 2029-02-25 |
| 10 | 5 | Paw Wipes | 2021-08-17 |
| 11 | 2 | Chlorox | 2014-06-05 |
| 12 | 2 | Windex | 2018-12-12 |
| 13 | 2 | Laundry Detergent | 2022-03-15 |
| 14 | 4 | Advil | 2023-01-30 |
| 15 | 4 | Bandaids | 2026-11-09 |
| 16 | 6 | Fertilizer | 2027-07-01 |
| 17 | 6 | Pesticide | 2022-03-30 |
+-----+-----+-----+-----+
17 rows in set (0.001 sec)
```

```
MariaDB [cs340_skinneem]> select * from Item_Types;
+-----+-----+
| id_itemType | name
+-----+-----+
| 1 | Toiletries
| 2 | Cleaning Supplies
| 3 | Groceries
| 4 | Pharmacy
| 5 | Pet Supplies
| 6 | Gardening
+-----+-----+
6 rows in set (0.001 sec)
```

```
MariaDB [cs340_skinneem]> select * from Store_Inventories;
+-----+-----+
| id_itemType | id_store |
+-----+-----+
| 1 | 1
| 1 | 3
| 2 | 3
| 3 | 3
| 3 | 5
| 4 | 4
| 5 | 6
| 6 | 2
+-----+-----+
8 rows in set (0.001 sec)
```

```
MariaDB [cs340_skinneem]> select * from Stores;
+-----+-----+-----+-----+
| id_store | name | address | hours_open |
+-----+-----+-----+-----+
| 1 | Amazonian | 101 Tesla Drive, Richland Hills, Texas, USA, 75890 | 12am to 3am |
| 2 | Home Depot | 123 Alphabet Rd, Someplace City, Texas, USA, 75891 | 6am to 10am |
| 3 | Get Tar | 10101 TopDown Ave, Psuedocode Woods, Texas, USA, 75892 | 9am to 5pm |
| 4 | Wallys Greens | 01010 BottomUp Blvd, Arrayville, Texas, USA, 75893 | 2pm to 8pm; 10pm to 2am |
| 5 | Costing Cocos | 2222 Dynamic St, Planning Valley, Texas, USA, 75894 | Closed permanently |
| 6 | Smartest Pets | 678 Backtracking Ln, Recursionton, Texas, USA, 75895 | Open 24 hours |
+-----+-----+-----+-----+
6 rows in set (0.000 sec)
```

UI Screenshots with Informative Titles:

Index Page - Displays descriptions of each page

Zoom: 75%

[Index](#) [Households](#) [Households Members](#) [Households Inventories](#) [Households Items](#) [Items Types](#) [Stores Inventories](#) [Stores](#)

Restock

No more store run planning! Find your items and know before you go.

Households

- Display households available
- Add a new household
- Edit current households
- Delete an existing household

Households Members

- Display members of different households
- Add a new household member
- Edit current household member status
- Delete an existing household member

Households Inventories

- Display inventory from all household inventories
- Filter inventory by selected household
- Add new household inventory stock
- Edit current inventory stock
- Delete existing inventory stock

Households Items

- Display household items
- Add a new household item
- Delete an existing household item

Items Types

- Display item types found in households
- Add a new item type

Stores Inventories

- Display item types found in store inventories
- Add an item type to a store's inventory

Stores

- Display stores available
- Add a new store
- Edit current stores
- Delete an existing store

Households Page - CREATE/READ/DELETE

[Index](#) [Households](#) [Households Members](#) [Households Inventories](#) [Households Items](#) [Items Types](#) [Stores Inventories](#) [Stores](#)

Restock

No more store run planning! Find your items and know before you go.

Households

ID	Name
34	Litterbox
44	Bang
54	Skinner
64	Horn

Address

101 Zip Blvd, New York City, New York, USA, 10010
102 Zip Blvd, Los Angeles, California, USA, 90210
103 Zip Blvd, Chicago, Illinois, USA, 60018
255 McNeil St

Edit **Print** **PDF** **CSV** **Excel**

Add a Household

Name

Address

Add

Households Page - UPDATE

Restock

No more store run planning! Find your items and know before you go.

Households - Edit Selection

ID	Name	Address
34	Litterbox	101 Zip Blvd, New York City, New York, USA, 10010

Edit a Household

Name

Address

Submit **Cancel**

Household Members Page - CREATE/READ/DELETE

Restock

No more store run planning! Find your items and know before you go.

Households Members

ID	Name	Runner Status	Household	Edit
94	Jane Doe	Dedicated Runner	Litterbox	
104	John Doe		Litterbox	
114	Son Doe		Litterbox	
124	Daughter Doe		Litterbox	
134	Maureen Lady	Dedicated Runner	Bang	
144	Barbara Waddingham		Bang	
154	Nathaniel Archibald	Dedicated Runner	Skinner	
164	Alex Lyndell		Skinner	
174	Sasha Grace	Dedicated Runner	Skinner	
184	Jeremiah		Horn	

Add a Household Member

Name

Household Select (Optional)

Dedicated Runner
 Not Runner

Add

Household Members Page - UPDATE

Restock

No more store run planning! Find your items and know before you go.

Households Members - Edit Selection

ID	Name	Household	Runner Status
94	Jane Doe	34	1

Edit a Household Member

Name Household --Select--(Optional)

Dedicated Runner
 Not Runner

Submit **Cancel**

Household Inventories Page - CREATE/READ/DELETE

Index Households Households Members Households Inventories Households Items Items Types Stores Inventories Stores

Restock

No more store run planning! Find your items and know before you go.

View by Household

ID	Household	Item	Amount Left	Restock Status	Edit
124	Litterbox	Fertilizer	Running Low	Restock	
134	Litterbox	Toothpaste	Fully Stocked		
144	Litterbox	Windex	Empty	Restock	
154	Litterbox	Band-aids	Empty	Restock	
164	Litterbox	Paw Wipes	Running Low	Restock	
174	Bang	Shampoo	Still Plenty	Restock	
184	Bang	Yogurt	Running Low	Restock	
194	Bang	Dog Food	Empty	Restock	
204	Skinner	Milk	Still Plenty	Restock	
224	Skinner	Coffee Beans	Empty	Restock	
234	Skinner	Toilet Paper	Empty	Restock	

Add a Household Inventory

Household	Item	Amount left
--Select--	--Select--	--Select--

Restock
 Currently Stocked

Add

Household Inventories Page - UPDATE

Index Households Households Members Households Inventories Households Items Items Types Stores Inventories Stores

Restock

No more store run planning! Find your items and know before you go.

Households Inventories - Edit Selection

ID	Household	Item	Amount Left	Restock Status
124	Litterbox	Fertilizer	Running Low	Restock

Edit a Household Inventory

Amount left

--Select--

Restock
 Currently Stocked

Submit **Cancel**

Household Inventories Page - FILTER by household

Restock

No more store run planning! Find your items and know before you go.

View by Household

✓ Litterbox

Bang
Skinner
Horn

ID	Household	Item	Amount Left	Restock Status	Edit
124	Litterbox	Fertilizer	Running Low	Restock	
134	Litterbox	Toothpaste	Fully Stocked		
144	Litterbox	Windex	Empty	Restock	
154	Litterbox	Band-aids	Empty	Restock	
164	Litterbox	Paw Wipes	Running Low	Restock	

Add a Household Inventory

Household	Item	Amount left
--Select--	--Select--	--Select--

Restock
 Currently Stocked

Add

Household Items Page - CREATE/READ/DELETE

Restock

No more store run planning! Find your items and know before you go.

Households Items

ID	Item Type	Name	Best If Used By
4	Toiletries	Toilet Paper	2022-11-26
14	Toiletries	Toothpaste	2022-12-31
24	Toiletries	Shampoo	2024-04-11
104	Cleaning Supplies	Chlorox	2014-06-05
114	Cleaning Supplies	Windex	2018-12-12
124	Cleaning Supplies	Laundry Detergent	2022-03-15
34	Groceries	Milk	2022-05-07
44	Groceries	Coffee Beans	2028-10-10
54	Groceries	Bananas	2022-05-02
64	Groceries	Yogurt	2022-05-12
134	Pharmacy	Advil	2023-01-30
144	Pharmacy	Band-aids	2026-11-09
174	Pharmacy	pills	2075-12-31
74	Pet Supplies	Dog Food	2022-07-15
84	Pet Supplies	Doggy Bags	2029-02-25
94	Pet Supplies	Paw Wipes	2021-08-17
154	Gardening	Fertilizer	2027-07-01
164	Gardening	Pesticide	2022-03-30

Add a Household Item

Item Type	Name	Best If Used By
--Select--	<input type="text"/>	<input type="text"/> mm/dd/yyyy

Add

Item Types Page - CREATE/READ

Index Households Households Members Households Inventories Households Items Items Types Stores Inventories Stores

Restock

No more store run planning! Find your items and know before you go.

Items Types

ID	Item Type
64	Toiletries
74	Cleaning Supplies
84	Groceries
94	Pharmacy
104	Pet Supplies
114	Gardening
124	More Pills?

Add an Item Type

Name

[Add](#)

Store Inventories Page - CREATE/READ

Index Households Households Members Households Inventories Households Items Items Types Stores Inventories Stores

Restock

No more store run planning! Find your items and know before you go.

Stores Inventories

Item Type	Store
Toiletries	Amazonian
Toiletries	Get Tar
Cleaning Supplies	Get Tar
Groceries	Get Tar
Pharmacy	Costing Cocos
Pet Supplies	Wally's Greens
Gardening	Smartest Pets
More Pills?	Home Depot
	Get Tar

Add a Store Inventory

Item Type

Store

[Add](#)

Stores Page - CREATE/READ/DELETE

[Index](#) [Households](#) [Households Members](#) [Households Inventories](#) [Households Items](#) [Items Types](#) [Stores Inventories](#) [Stores](#)

Restock

No more store run planning! Find your items and know before you go.

Stores

ID	Name	Address	Hours Open	Edit
64	Amazonian	101 Tesla Drive, Richland Hills, Texas, USA, 75890	12am to 3am	
74	Home Depot	123 Alphabet Rd, Someplace City, Texas, USA, 75891	6am to 10am	
84	Get Tar	10101 TopDown Ave, Psuedocode Woods, Texas, USA, 75892	9am to 5pm	
94	Wallys Greens	01010 BottomUp Blvd, Arrayville, Texas, USA, 75893	2pm to 8pm; 10pm to 2am	
104	Costing Cocos	2222 Dynamic St, Planning Valley, Texas, USA, 75894	Closed permanently	
114	Smartest Pets	678 Backtracking Ln, Recursionton, Texas, USA, 75895	Open 24 hours	

Add a Store

Name

Address

Hours Open

[Add](#)

Stores Page - UPDATE

[Index](#) [Households](#) [Households Members](#) [Households Inventories](#) [Households Items](#) [Items Types](#) [Stores Inventories](#) [Stores](#)

Restock

No more store run planning! Find your items and know before you go.

Stores - Edit Selection

ID	Name	Address	Hours Open
64	Amazonian	101 Tesla Drive, Richland Hills, Texas, USA, 75890	12am to 3am

Edit a Store

Name

Address

Hours Open

[Submit](#) [Cancel](#)

Code Citations:

1. Github Flask Starter Guide
 - a. Scope: Module
 - b. Date: 04/05/22
 - c. Originality: Copied
 - d. Source URL: <https://github.com/osu-cs340-ecampus/flask-starter-app>
2. Flask Blueprints
 - a. Scope: Module
 - b. Date: 04/28/22
 - c. Originality: Based

- d. Source URL: <https://flask.palletsprojects.com/en/2.1.x/blueprints/>
- 3. Heroku/ClearDB
 - a. Scope: db_connector and env
 - b. Date: 05/06/22
 - c. Originality: Based
 - d. Source URL: <https://elements.heroku.com/addons/cleardb>
- 4. Bootstrap
 - a. Scope: Module
 - b. Date: 06/03/22
 - c. Originality: Copied
 - d. Source URL: <https://getbootstrap.com/docs/4.0/layout/overview/>
- 5. FontAwesome
 - a. Scope: Module
 - b. Date: 06/03/22
 - c. Originality: Copied
 - d. Source URL: <https://fontawesome.com/icons>
- 6. W3 Schools
 - a. Scope: Module
 - b. Date: 06/03/22
 - c. Originality: Adapted
 - d. Source URL: https://www.w3schools.com/jsref/met_form_submit.asp