Oscar - Reinitz, Dominic Saleh

Prelim SDD Major Project Documentation

# Allocation of Tasks

Gantt Chart: Oscar

Screen Designs: Oscar

Data Dictionary: Dominic

HTML and CSS setup: Oscar

Javascript Local storage: Dominic

Javascript Binary Search: Oscar

# Logbook

2021-08-01 Oscar - Removed Submit.js File

2021-04-19 Oscar - Initial File Setup

2021-04-19 Oscar - Initial commit

2021-04-22 Dominic -Update index.html

2021-04-22 Dominic -Update index.html

2021-04-26 Oscar - Merge branch 'main' of https://github.com/Oscar -44/Major-Project-2021\_Subject-Selection into main

2021-04-26 Oscar - Pure CSS Setup

2021-04-26 Oscar - Update readme with section from proposal

2021-04-26 Oscar - Licensing for Pure CSS Layouts

2021-04-27 Oscar - PureCSS Experimentation

2021-04-29 Oscar - HTML homepage setup

2021-04-30 Oscar - Search page setup

2021-04-30 Oscar - Added additional HTML pages

2021-05-13 Dominic -Submission page css

2021-05-14 Oscar - Formatted Search Page

2021-05-16 Dominic -Subject names and header

2021-05-17 Oscar - Search JS setup

2021-05-19 Oscar - Search Function array Setup

2021-05-20 Oscar - Binary Search function planning

2021-05-31 Oscar - adjustment to commit log batch file

2021-05-31 Oscar - Commit logging bat file test

2021-06-02 Oscar - Significant development to binary search. Implemented div hiding and search algorithm. Search term simplification WIP

2021-06-02 Oscar - Transferred commit logging process to out of repository

2021-06-03 Dominic -Subject Selection setup

2021-06-03 Oscar - Switch statement for term simplification function

2021-06-07 Oscar - Switch statement fixed, search function debugging begun

2021-06-08 Oscar - Binary Search function completed and working. CSS centering for search page fixed. Div hide/show function error corrected.

2021-06-10 Oscar - added cases to switch statement

2021-06-16 Oscar - Adjusted background image and css styling for home page

2021-06-16 Oscar - Added subject units to localstorage variables fixed typos, added validation for subject selections, compiled purecss locally

2021-06-17 Oscar - Built Submission page

2021-07-14 Oscar - Replaced searchbar with simpler version, Fixed an issue where arrays would be called from differing js scripts due to same names, css adjustments to search page, added button to reset search

2021-07-14 Oscar - Adjustment To CSS for larger screens

2021-07-15 Oscar - Local storage of subject object array

2021-07-26 Oscar - Update README.md

2021-07-26 Oscar - Documentation Merged with GitHub

2021-07-28 Oscar - Coded Validation for Submission Page

2021-07-31 Oscar - Moved script linking

2021-07-31 Oscar - Submission Page Bugfixes

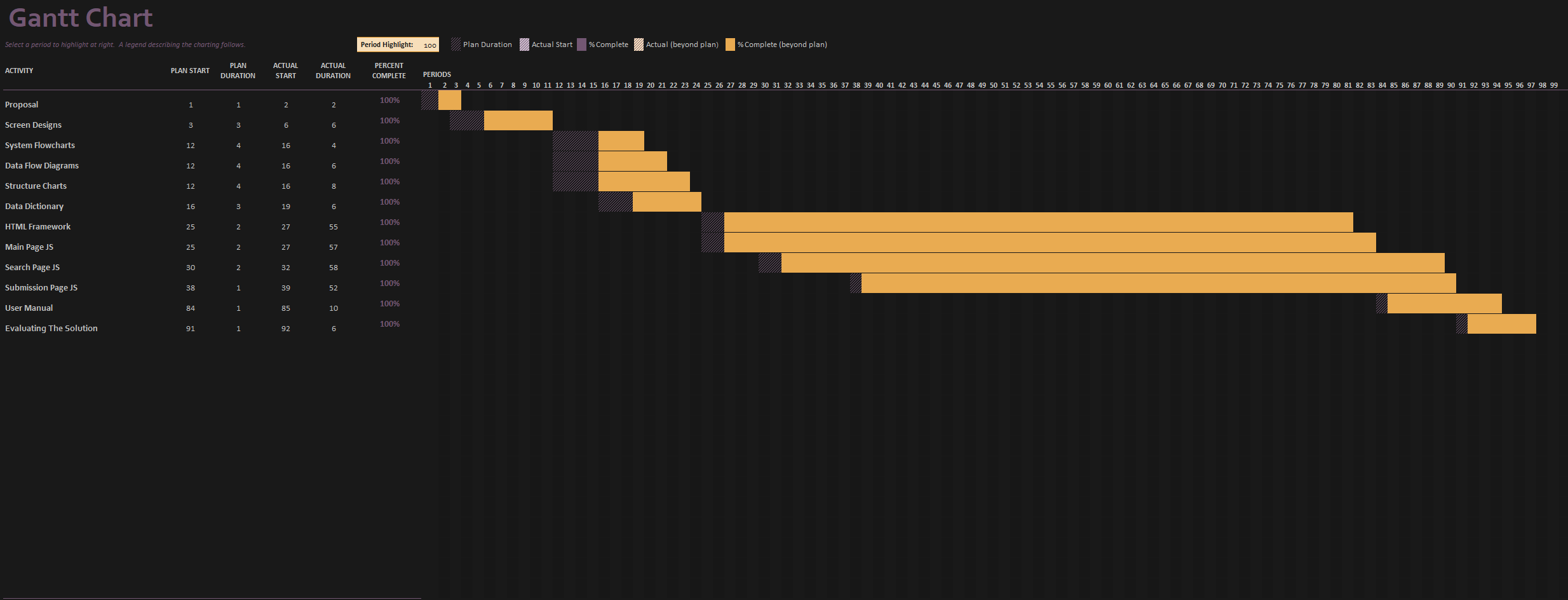
2021-08-01 Oscar - Merged All Diagrams to Folio. Resolved Missing JS file for search page

2021-08-01 Oscar – Finalised Folio

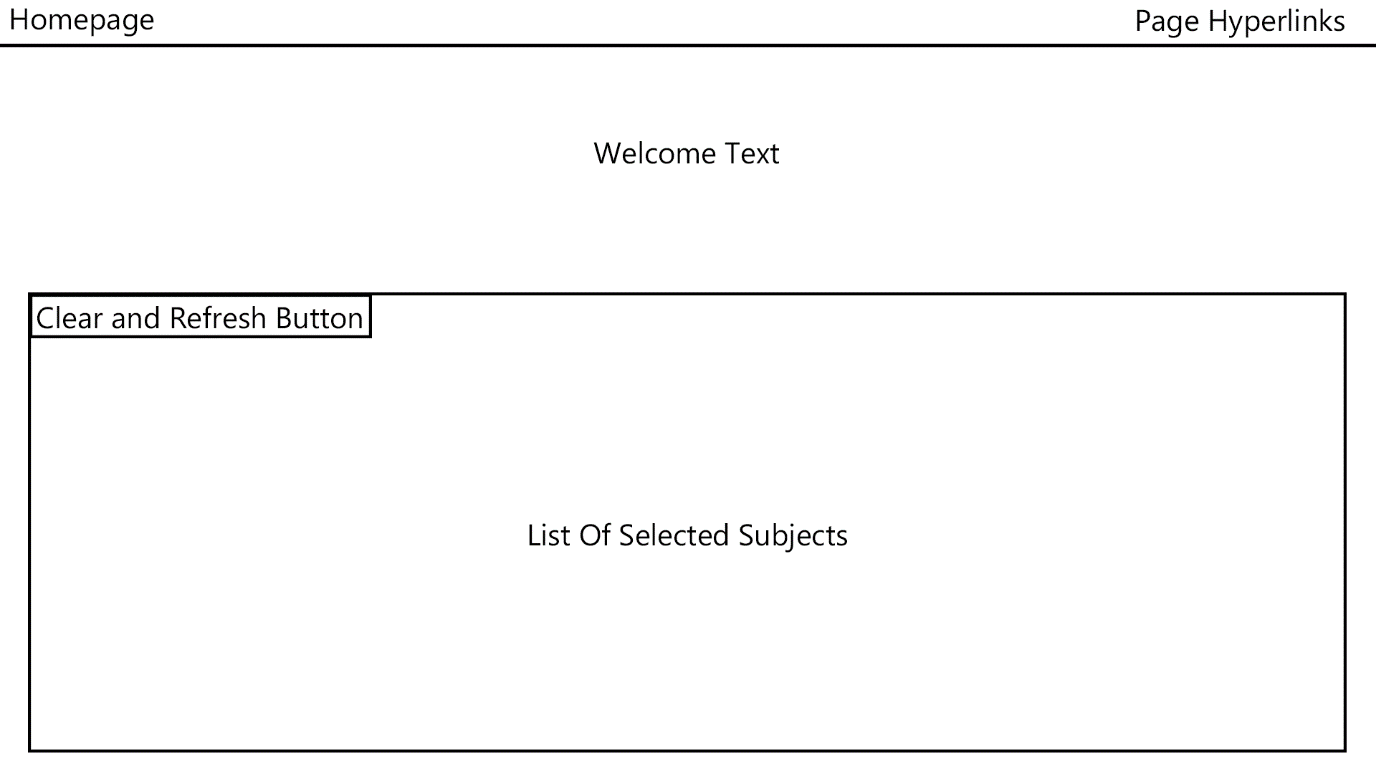
2021-08-02 Oscar – Additional Code Comments and User Manual Merge

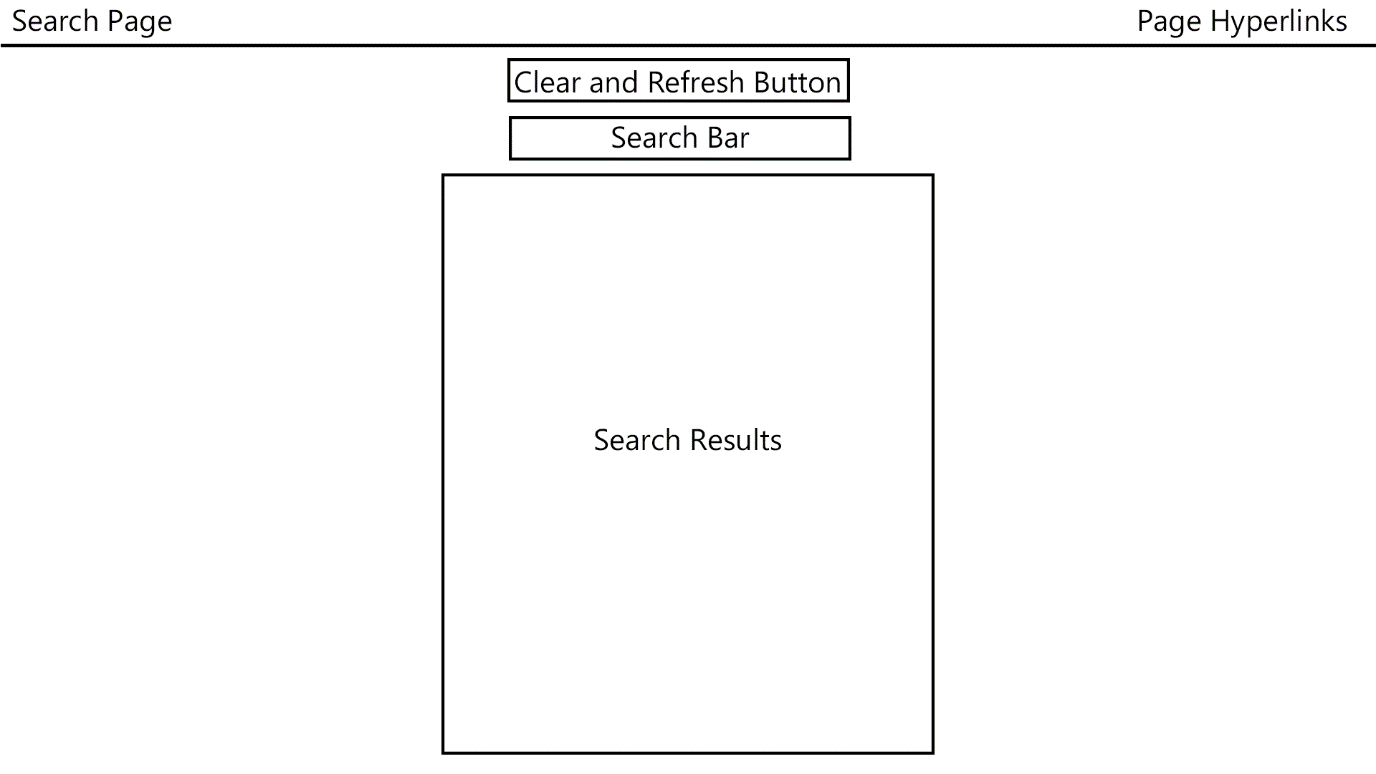
2021-08-02 Oscar – PDF Compilation

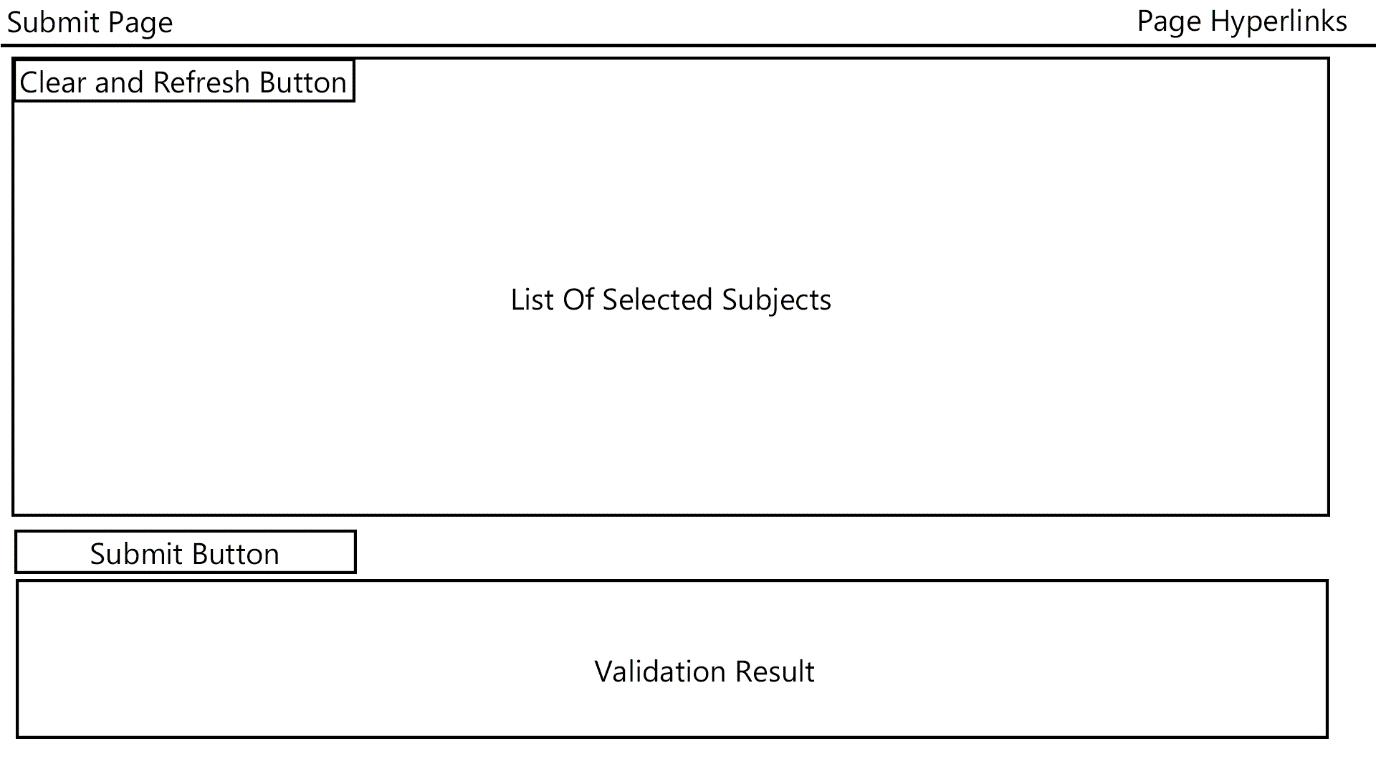
# Gantt Chart (Excel File Included)



# Screen Designs



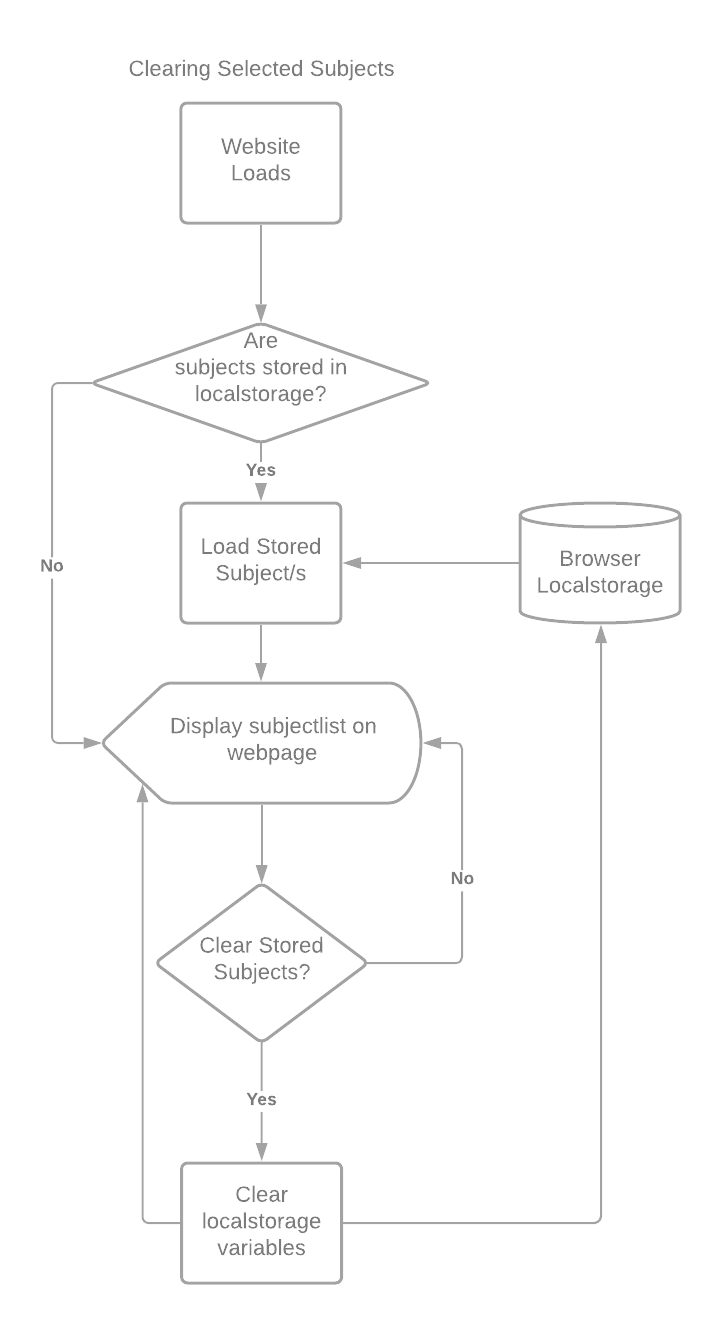


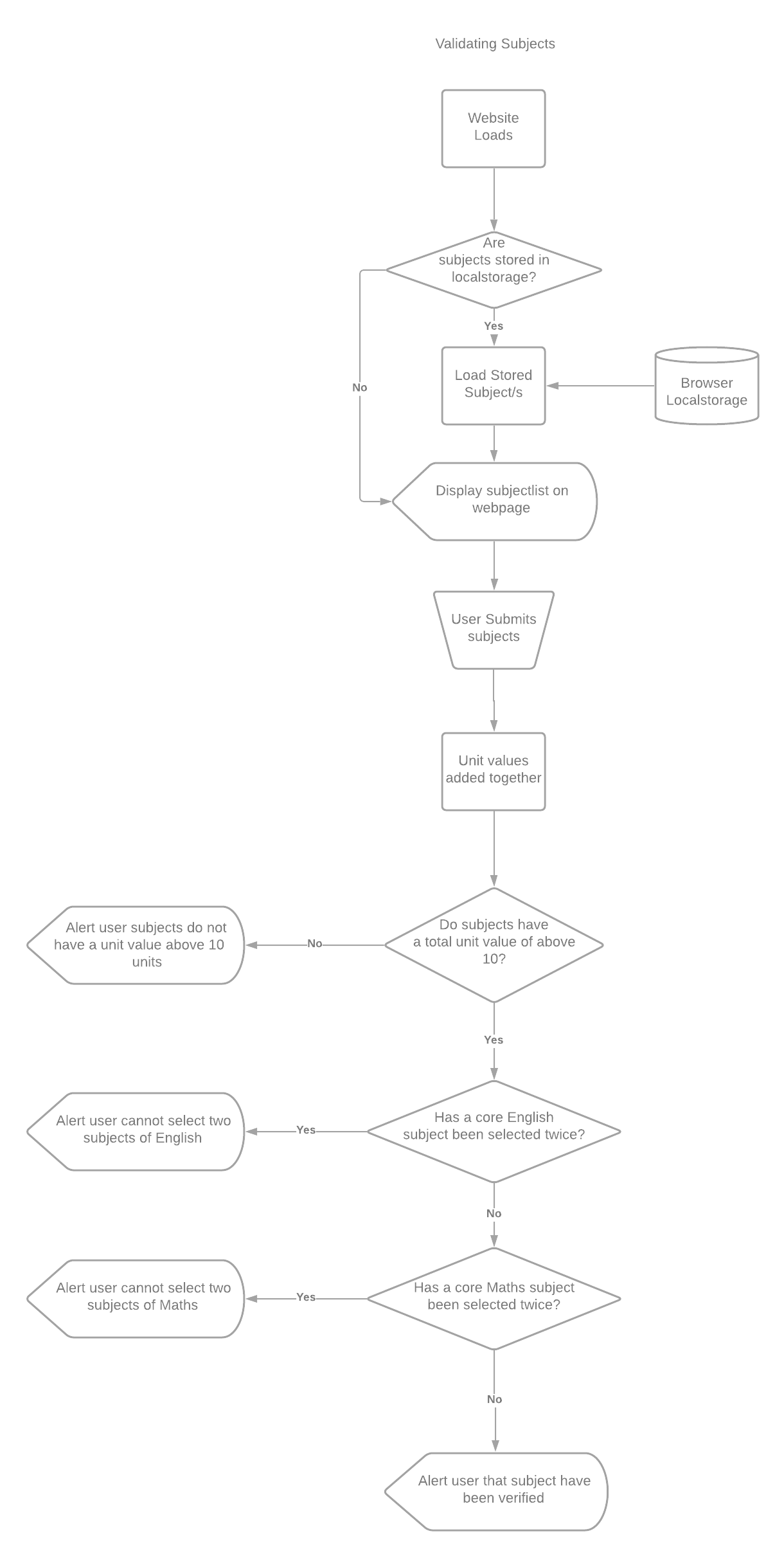
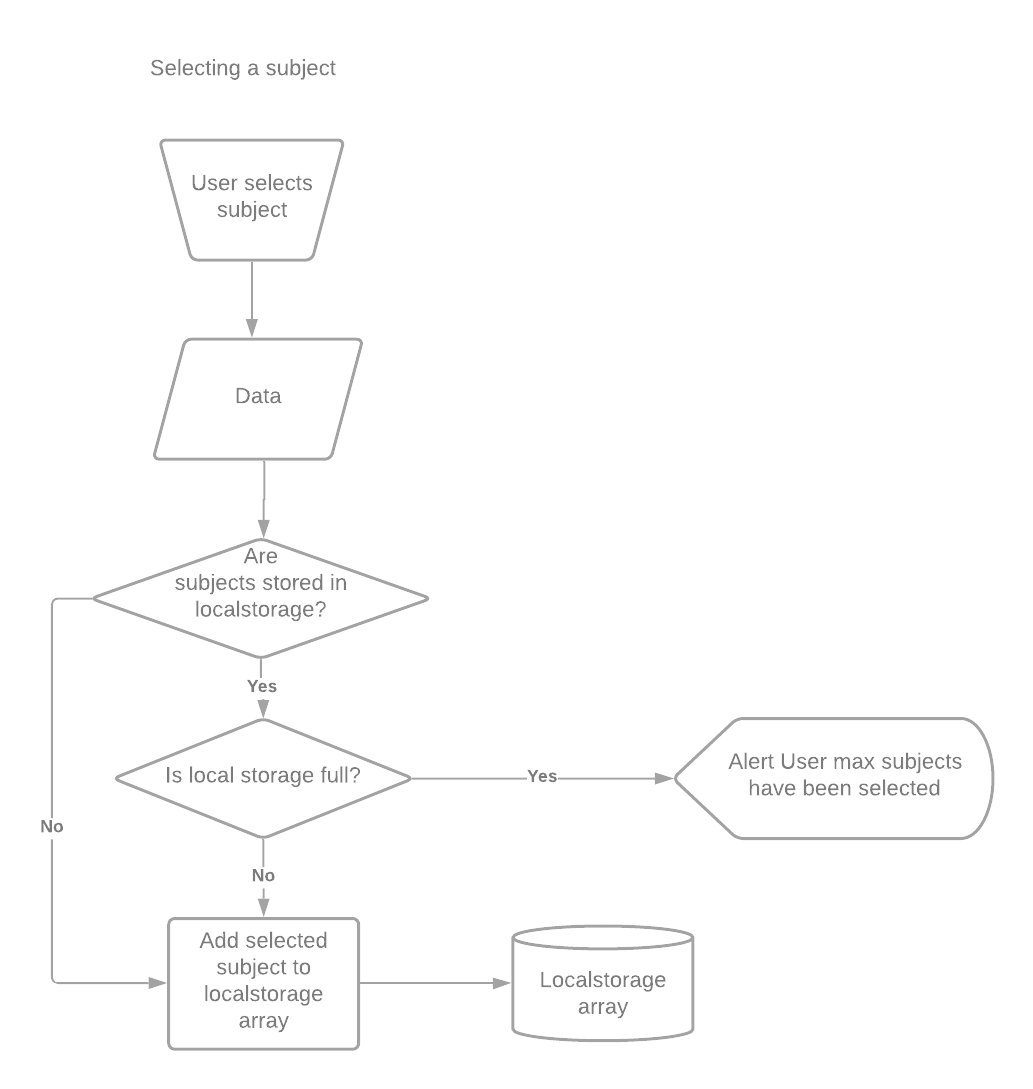
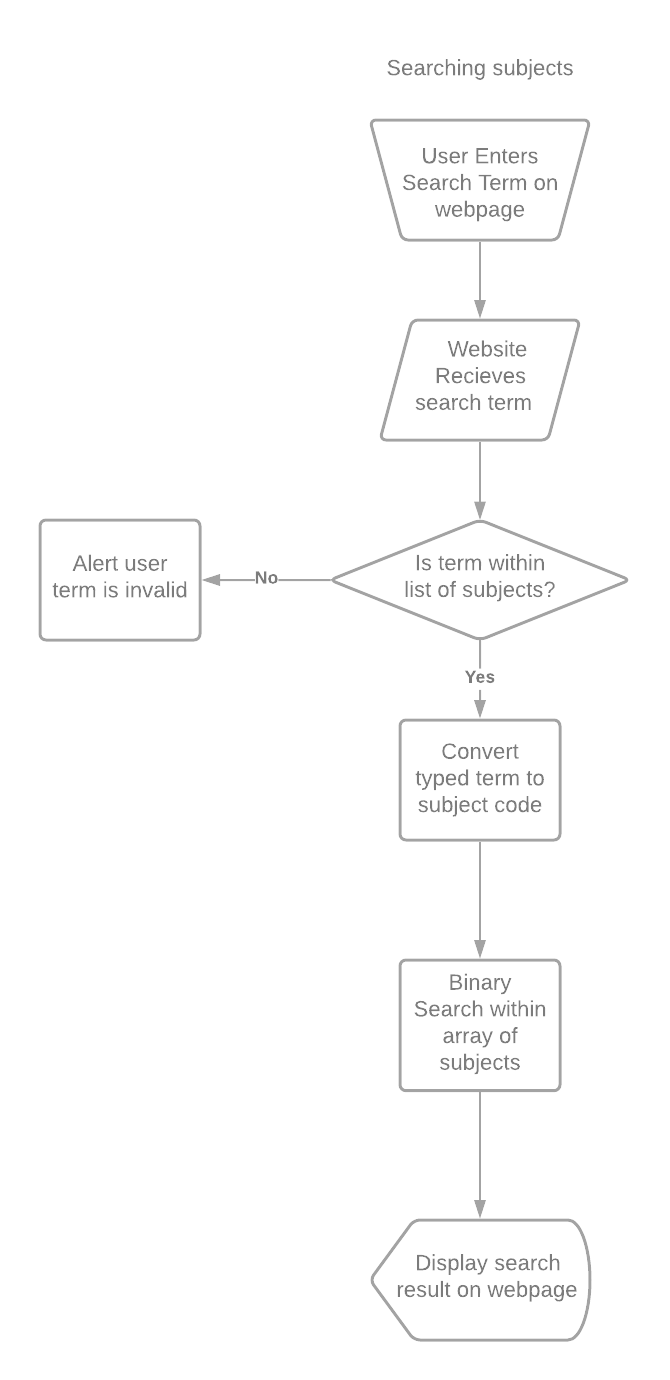


# Data Dictionary

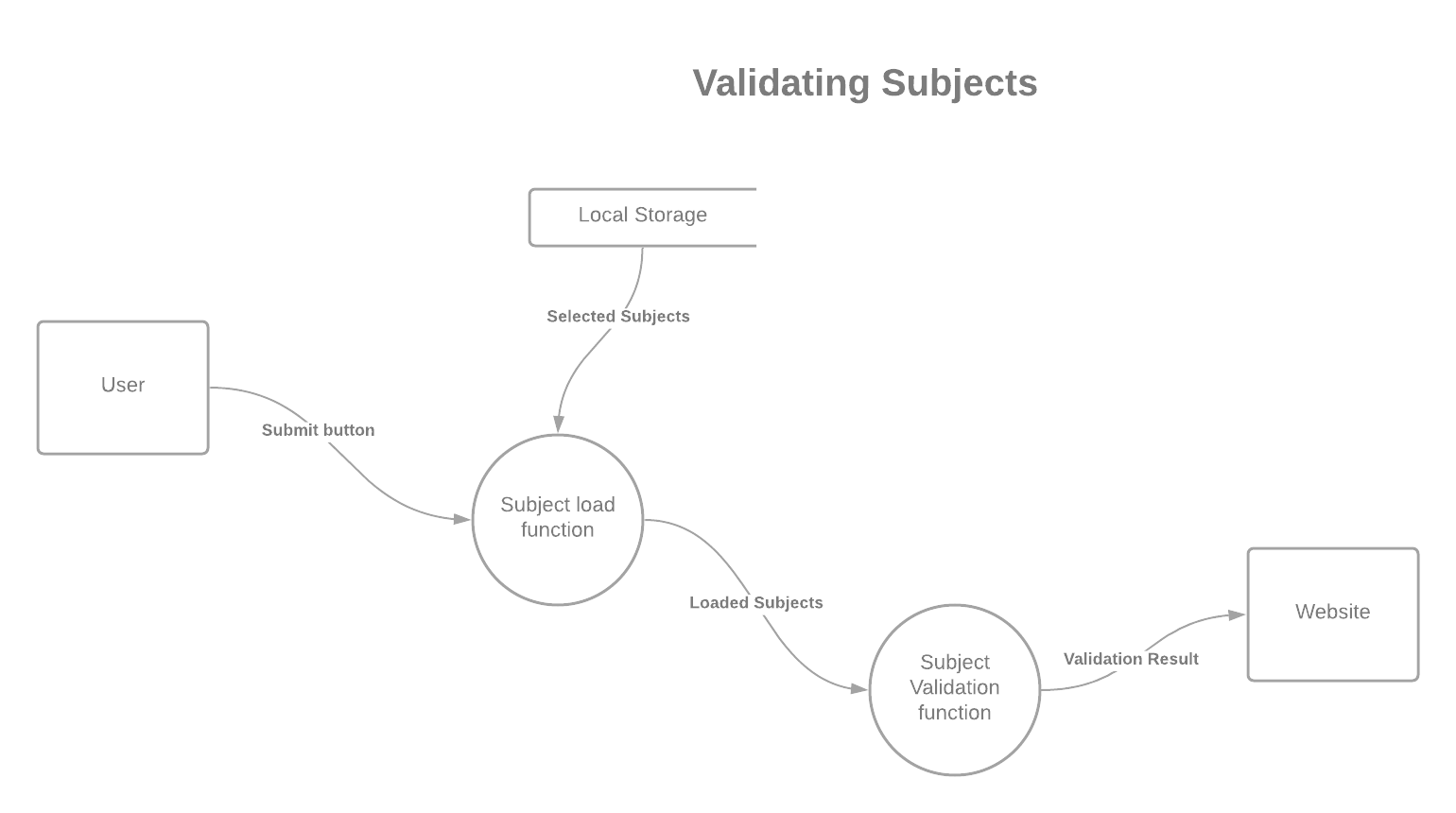
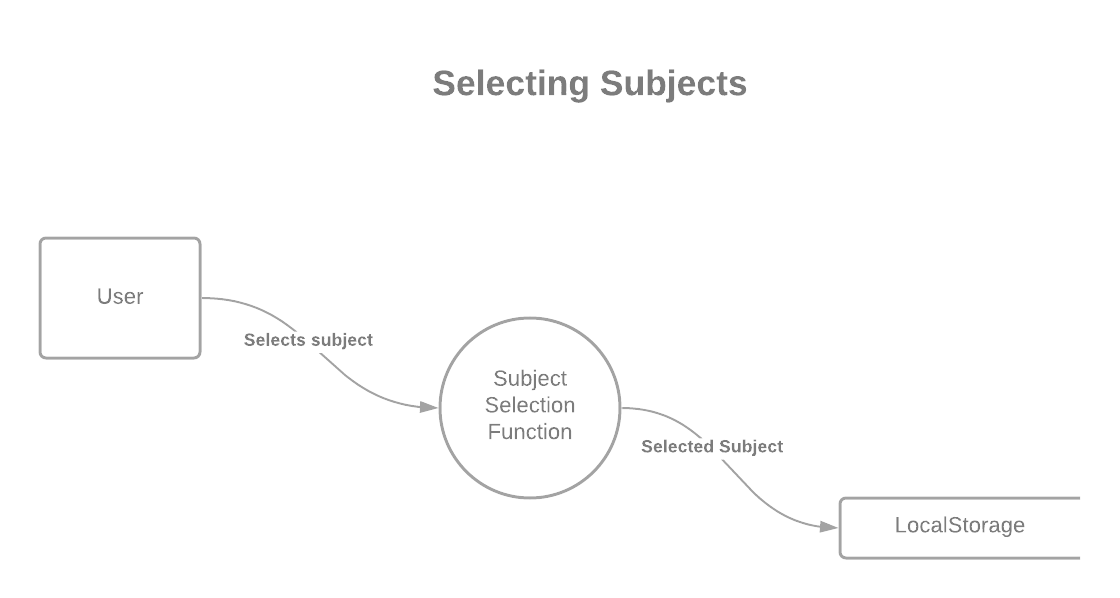
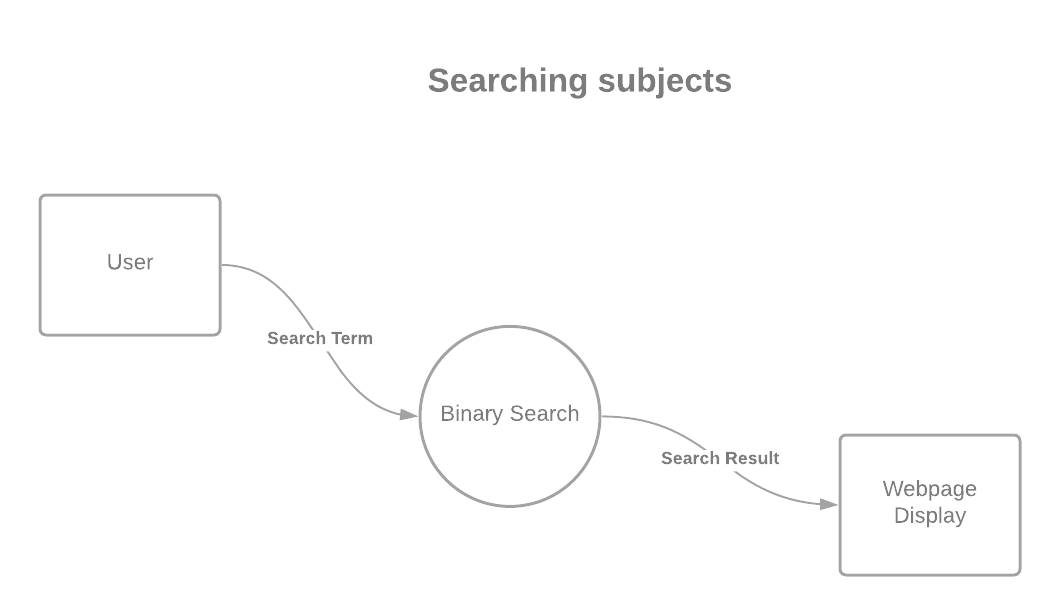
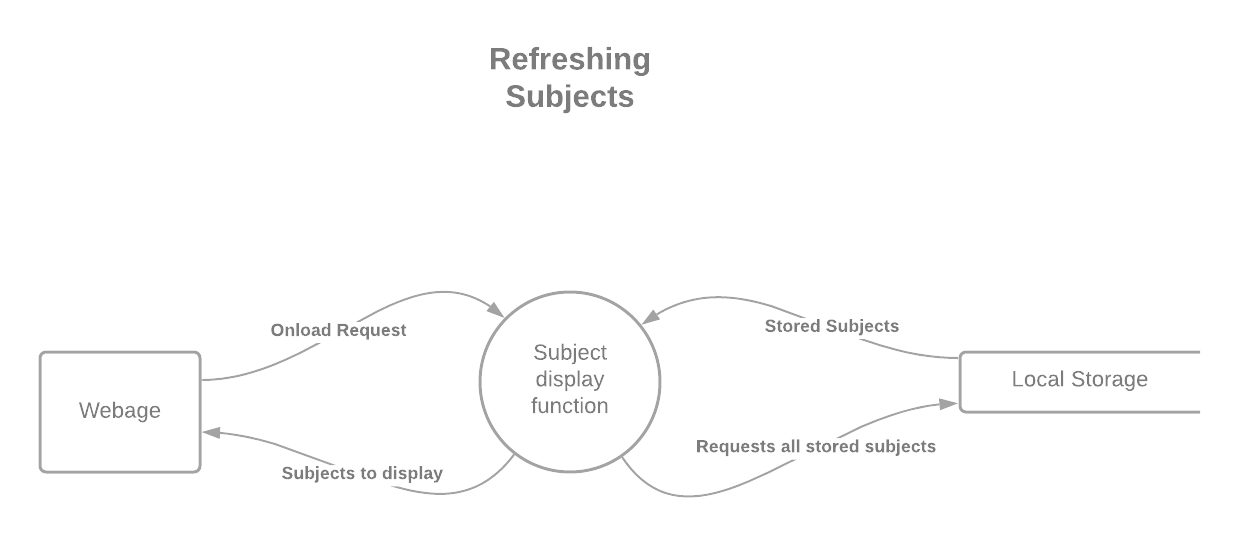
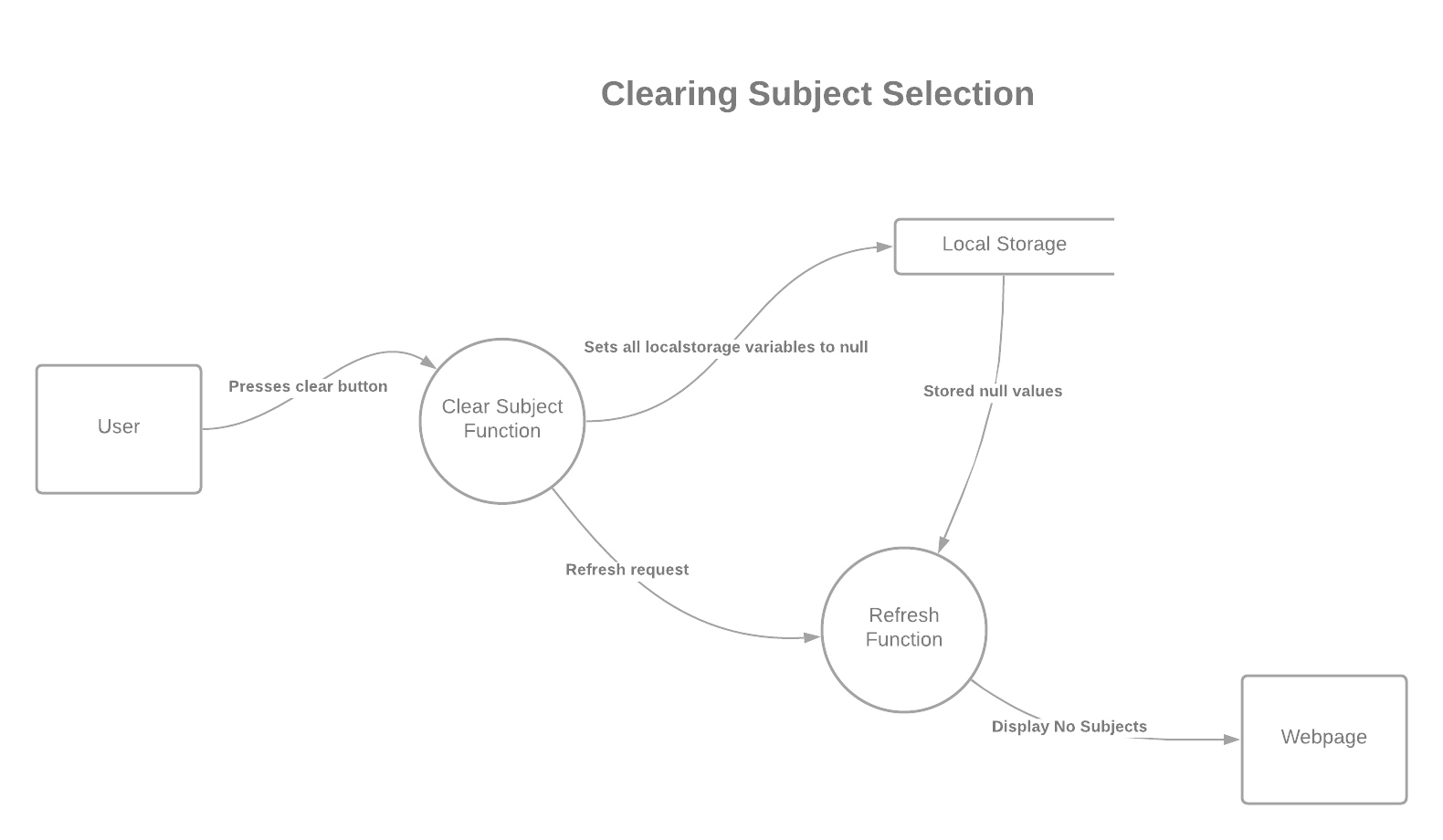
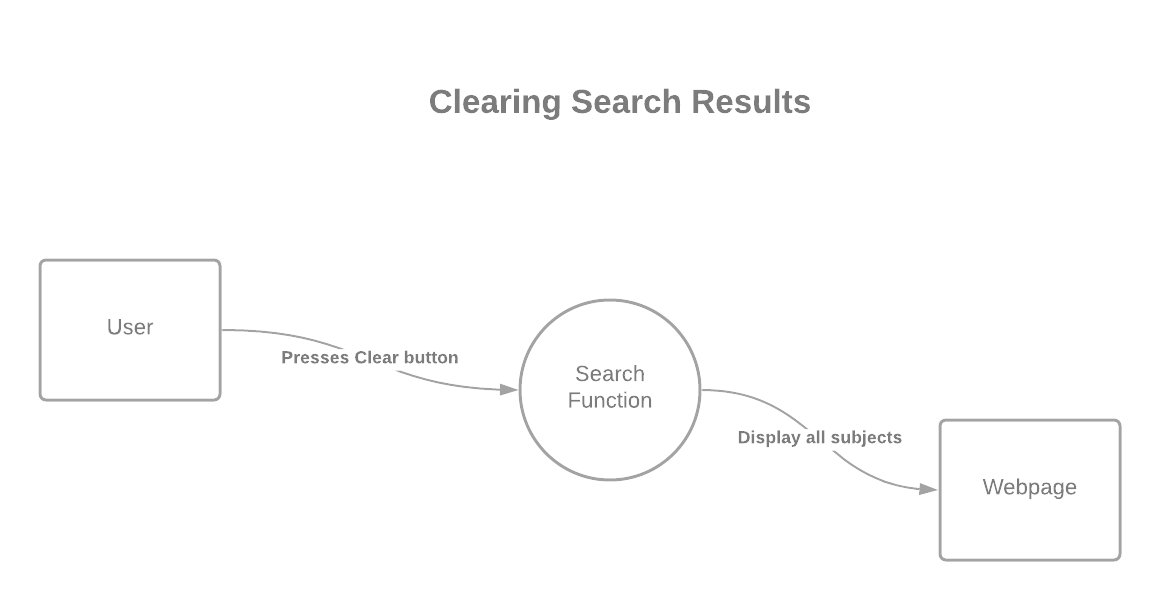
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable Name | Data Type | Scope | Length | Description | Example |
| subjectsCode | Object Array | Global – search.js | 40 | Contains the name codes for the 40 available subjects | “enStand” |
| selectedSub | Array | Global – search.js | Varies 0-8 | Holds up to 8 subject name codes when they are selected | “enStand” |
| subjectHeaders | Array | Global – search.js | 13 | Contains the subject header name code for usage in hiding divs | “headEn” |
| searchTerm | Integer from HTML element | Local – search.js | Varies | The string that the user enters into the search bar | “Advanced English” |
| tempTerm | String | Local – search.js | Varies | Holds a the resulting simplified version of the search term from the simpTerm function | “enAdv” |
| searchResult | String | Local – search.js | Varies | Holds the resulting name code from the binary Search function | “maAdv” |
| items | String | Local – search.js | Varies | Sorted array for the binary search algorithm | “enAdv maAdv” |
| value | String | Local – Search.js | Varies | Search term for the binary search algorithm | “enAdv” |
| middle | Integer | Local – Search.js | Varies | Used to calculate the middle during the binary search | “4” |
| term | String | Local – Search.js | Varies | Hold the search term when used in the simpTerm function | “english studies” |
| startIndex | Integer | Local – Search.js | Varies | Value used when binary searching to indicate which value of the array to begin each search | “0” |
| stopIndex | Integer | Local – Search.js | Varies | Value used when binary searching to indicate which value of the array to be at the end of each search | “6” |
| thingA | String | Local – Search.js | Varies | Value used in sort(compare) function | N/A |
| thingB | String | Local – Search.js | Varies | Value used in sort(compare) function | N/A |
| comparison | Integer | Local – Search.js | 1 | Value used as a result from comparing thingA and thingB | “0” |
| subCount | Integer | Global – main.js | Varies | Value held in localstorage that indicates how many subjects have been selected so far | “4” |
| subjects | Array | Global – main.js | Varies | Array containing all subjects, their unit value and if they are currently selected | “English Studies” |
| subName1 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits1 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName2 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits2 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName3 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits3 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName4 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits4 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName5 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits5 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName6 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits6 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName7 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits7 | Integer | Local – main.js | Varies | Number that holds the units of a currently selected subject | “2” |
| subName8 | String | Local – main.js | Varies | String that holds the name of a currently selected subject | “English Studies” |
| subUnits8 | Integer | Local – main.js | 1 | Number that holds the units of a currently selected subject | “2” |
| sub1 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub2 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub3 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub4 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub5 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub6 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub7 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| sub8 | Integer | Local – main.js | 1 | Holds number of units in a given selected subject | “1” |
| subs | Array | Local - main.js | 1-2 | Holds sum of units in subject selection | “12” |
| sublist | Array | Local – main.js | 0-8 | Array that holds the names of the currently selected subjects | “English Studies” |
| subN1 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN2 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN3 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN4 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN5 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN6 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN7 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subN8 | String | Local – Main.js | Varies | Holds name of selected subject | “English Studies” |
| subNs1 -  subNs8 | Array | Local – Main.js | Varies | Used to hold the first word in a subject name | “English” |
| subNp1 -  subNp8 | Array | Local – Main.js | Varies | Splits a subject name up into an array of each word | “English“  “Studies” |
| subNP | Array | Local – main.js | Varies | All subNp variables concatenated together | “English“  “Studies” |
| subNS | Array | Local – main.js | Varies | Array of all subNs variables | “English” |

# System Flowcharts:

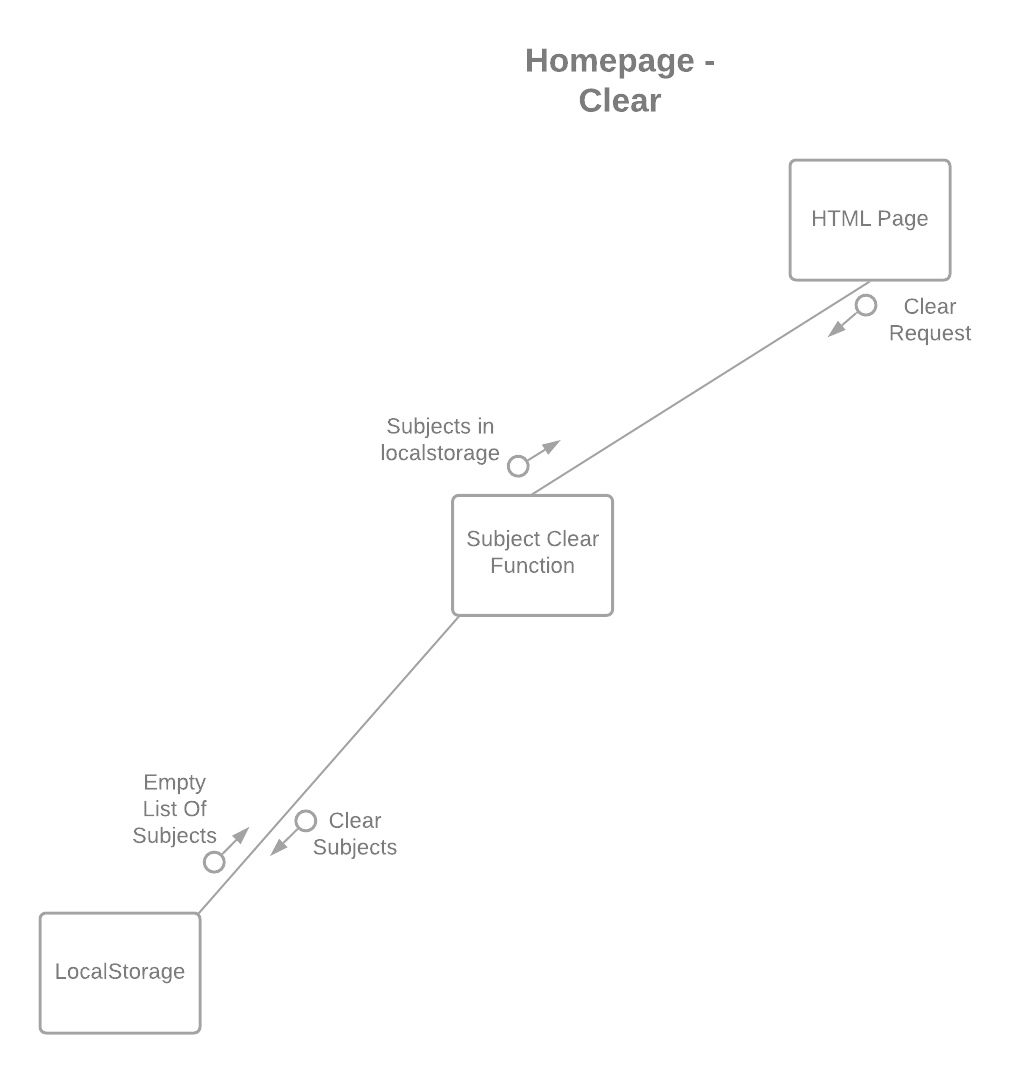


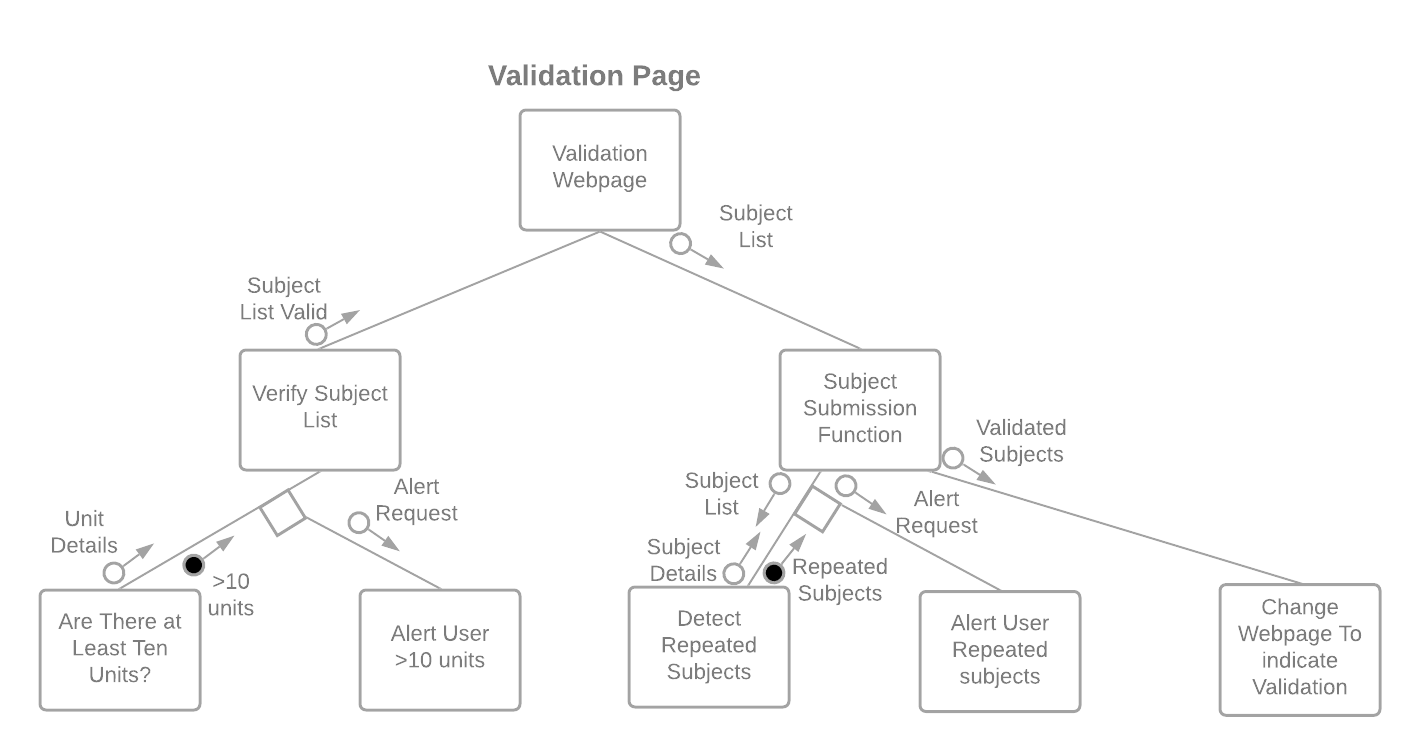
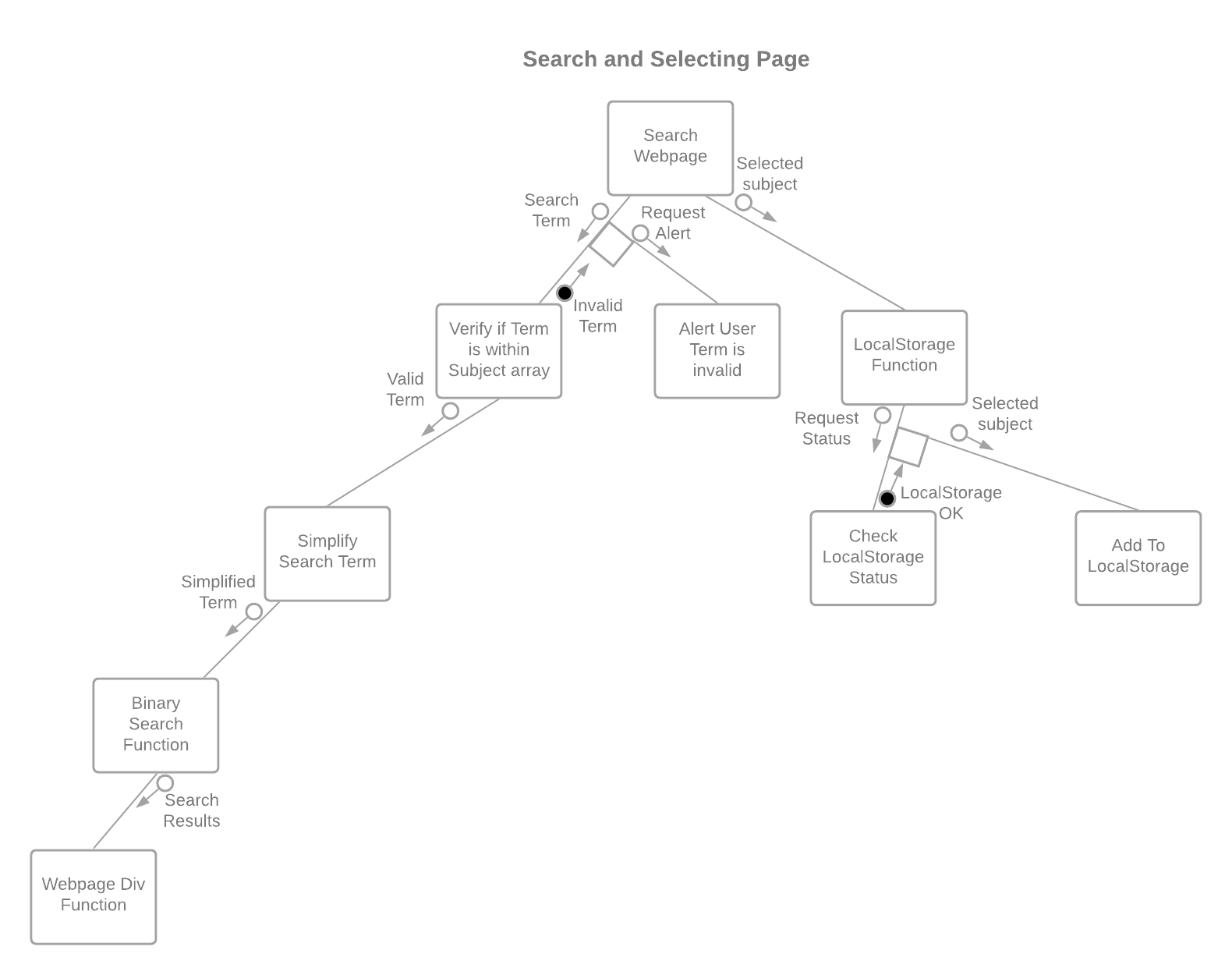
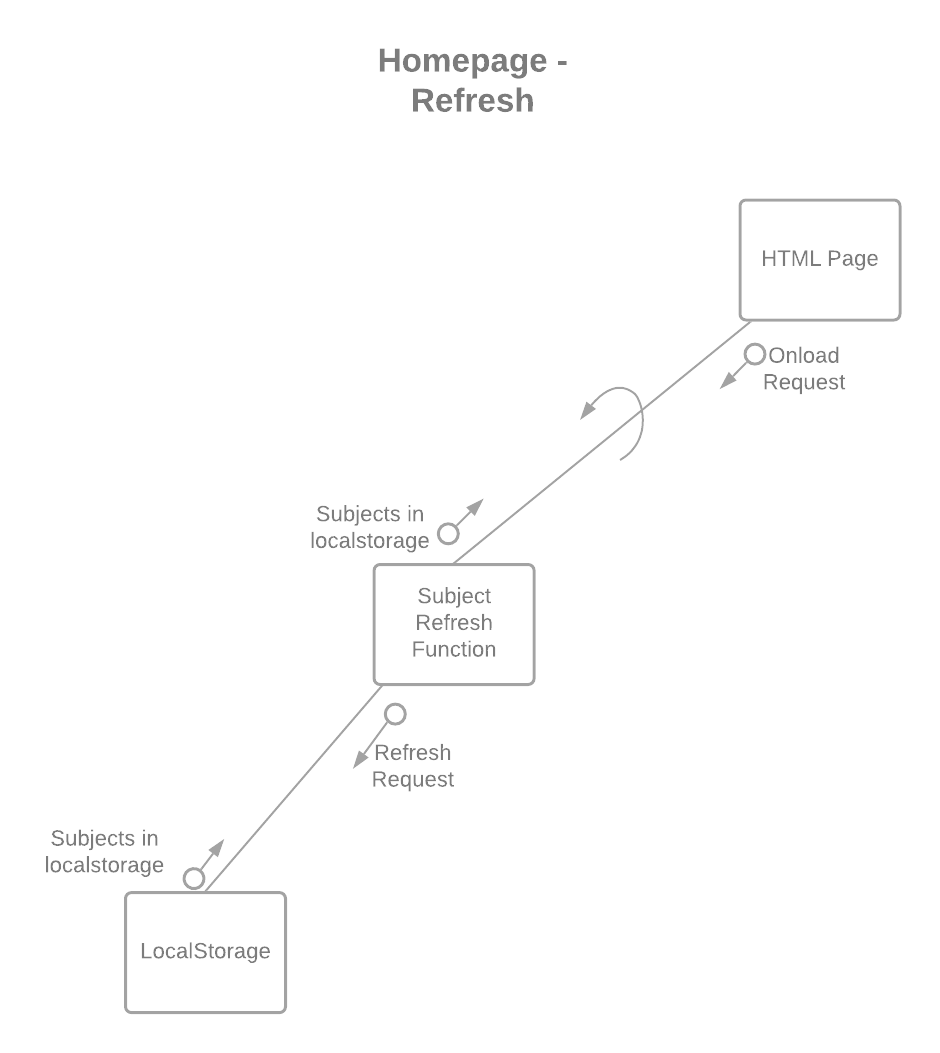


# Data Flow Diagrams



# Structure Charts





# Evaluating The Solution

The solution was able to display Local Storage of the selected subjects in the browser and recall them throughout the three pages on the site. The binary search function was successfully implemented for a given term. Each subject could be added to an array which was accessible across the three pages via the usage of buttons. The validation page effectively evaluated the selected list of subjects dependant on the total unit value and overlapping subjects like English and Mathematics. However, the function that allowed sorting of subjects on the search webpage proved to be extremely difficult to develop due to the method that allowed the hiding of subjects in the binary search, this ended up in the feature to be scrapped after the binary search had been completed. The system to hide other units of subjects like English and Maths once one was selected also proved difficult to develop due to this same reason, being instead satisfied by the validation page’s functions, alerting the user when they submit that the error has occurred.

Overall, the solution met the majority of the proposed goals, allowing for the main features of subject selection and validation to occur, with effective use of local storage and binary search, where only few features were unable to be implemented due to constraints of the solution’s design.