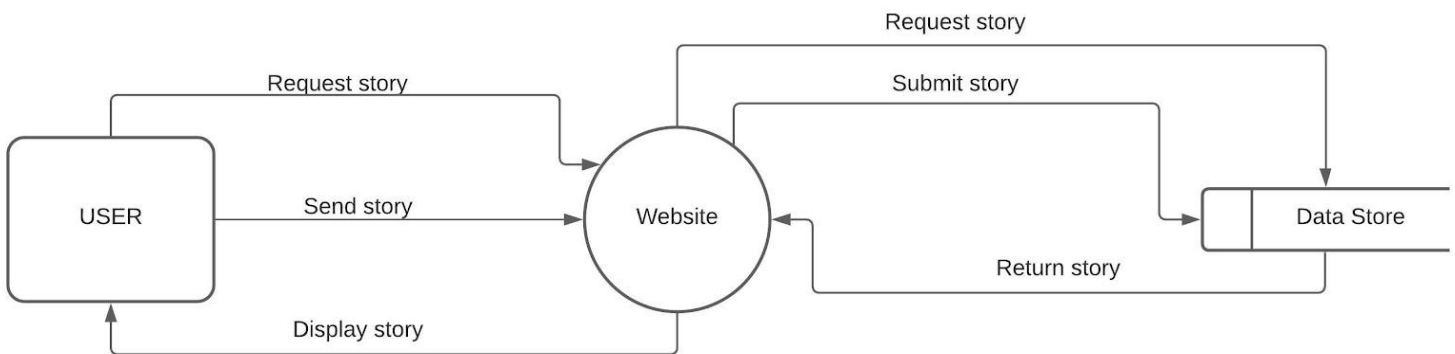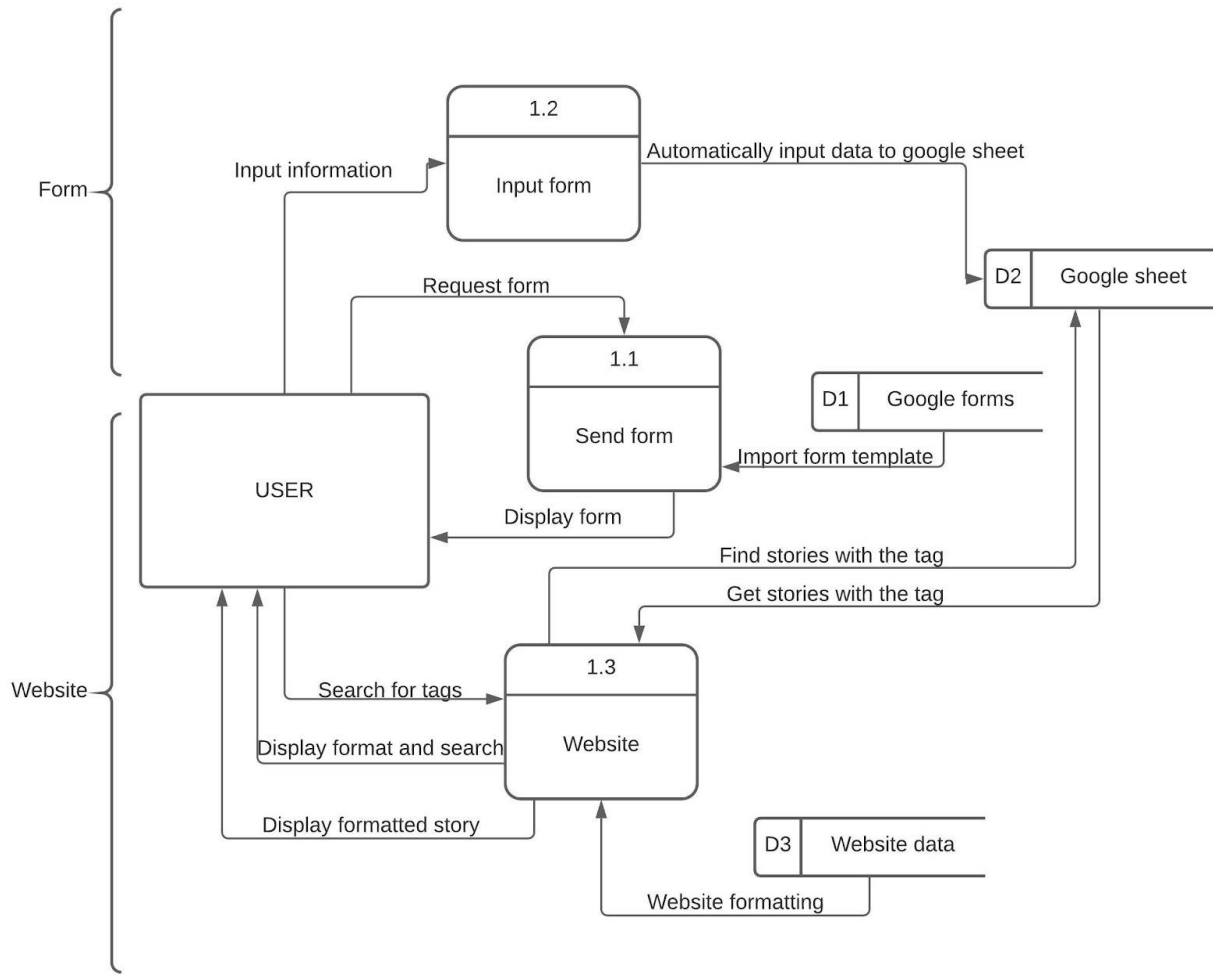# Criterion B: Design

The project will have two interfaces, code that runs them and code that interacts between them.

The client selected from a group of colour schemes and wireframes for the design. I used this to develop the basic design for the website [16-Developer & 16-Client]. The form was designed to be easy to access and to follow the website's colour scheme.
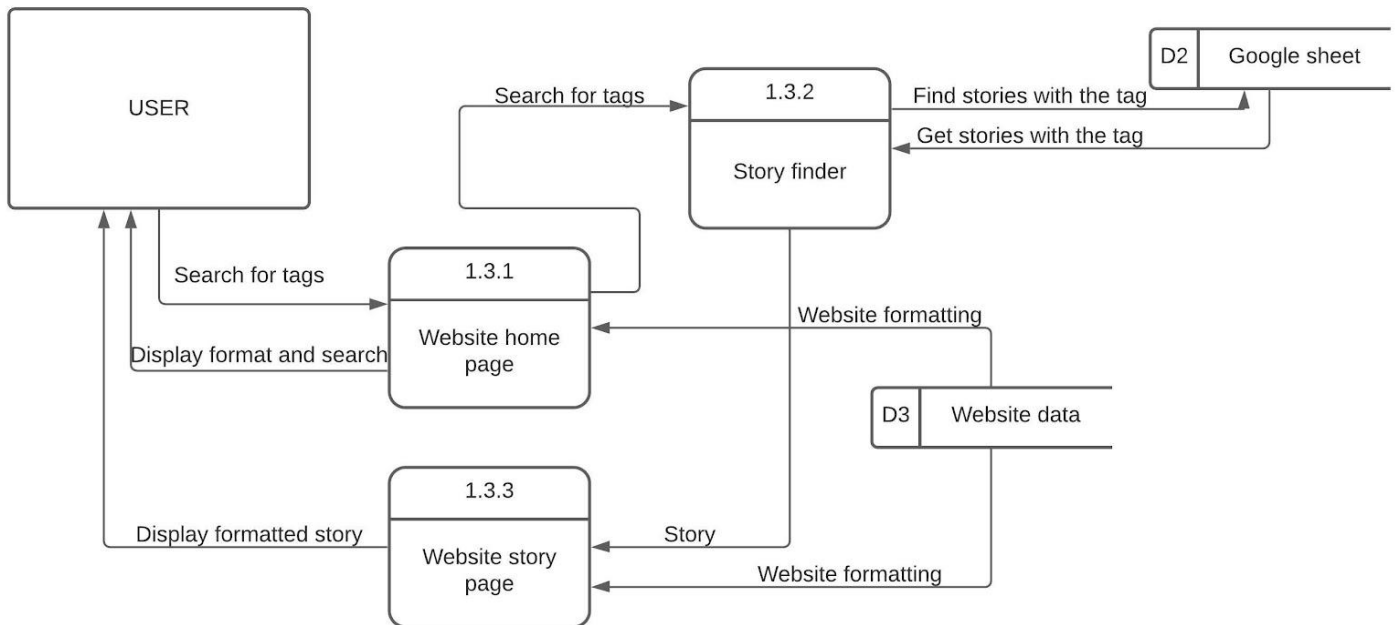
System Context and Data Flow Diagrams

System Context Diagram

Data Flow Diagram Level 1

Data Flow Diagram Level 2 - The website

Processes

1.1 Send Form
The Send form function opens a google form that is used to submit stories to the database. This will be done through a shareable link and a button in the website.

1.2 Input form
The Input form function sends information the user has entered to the google database in organised patterns allowing the data to be easily collected.

1.3 Website

  1.3.1 Home page
  The home page will display text explaining the website as well as a search bar to search for stories and links to the latest and most viewed stories.

  1.3.2 Story finder
  The story finder will look for stories with tags entered in the search bar in the google database and return their titles and tags to the website. The user will then select one and the Story finder will display the data on the website.

  1.3.3 Story page
  The story page will arrange the data received by the Story finder so that it can be easily viewed.

NOTE: The website uses the same page for efficiency but certain elements are hidden, the two states are shown as 1.3.1 and 1.3.3.

Overview of the Story Finder process (Pseudocode)

```
SEARCHSTRING=??? //get input from search bar sent from website
KEYWORD[]  //holds keywords to look for

if SEARCHSTRING == (SEARCHPROMPT1 || SEARCHPROMPT2 || ...) then
 prematureReturn(story)
end if

else
     if checkForMonth(SEARCHSTRING)!="false" then
         ISDATE=True    //holds tags or date
         KEYWORD.push(checkForMonth(SEARCHSTRING))
     end if
     if findDate(SEARCHSTRING)!=0 then
         ISDATE=True    //holds tags or date
         KEYWORD.push(findDate(SEARCHSTRING))
     end if
     else
         ISDATE=False    //holds tags or date
         KEYWORDCONVERSION=SEARCHSTRING
         KEYWORD=KEYWORDCONVERSION.split(" ")  //Makes each word an
element
     end else
end else

STORYCOUNT[]
STORYPOINTS[]
if ISDATE==False then
     loop COUNTER from 0 to getAmountOfStories
         MAR=("?"+(COUNTER+?)) //hold the coordinate of the story's
cell
         DATA[]=getStory(MAR)
         loop I from 1 to DATA[].length()

             STORYCOUNT[COUNTER]=getRow(MAR)  //save which story
             STORYPOINTS[COUNTER]=keywordTest(MAR,KEYWORD) //goes
through KEYWORDs to see if they match the story tags, author or
content. Gives 1 point for match and 3 points for title word match

         end loop
     end loop
```
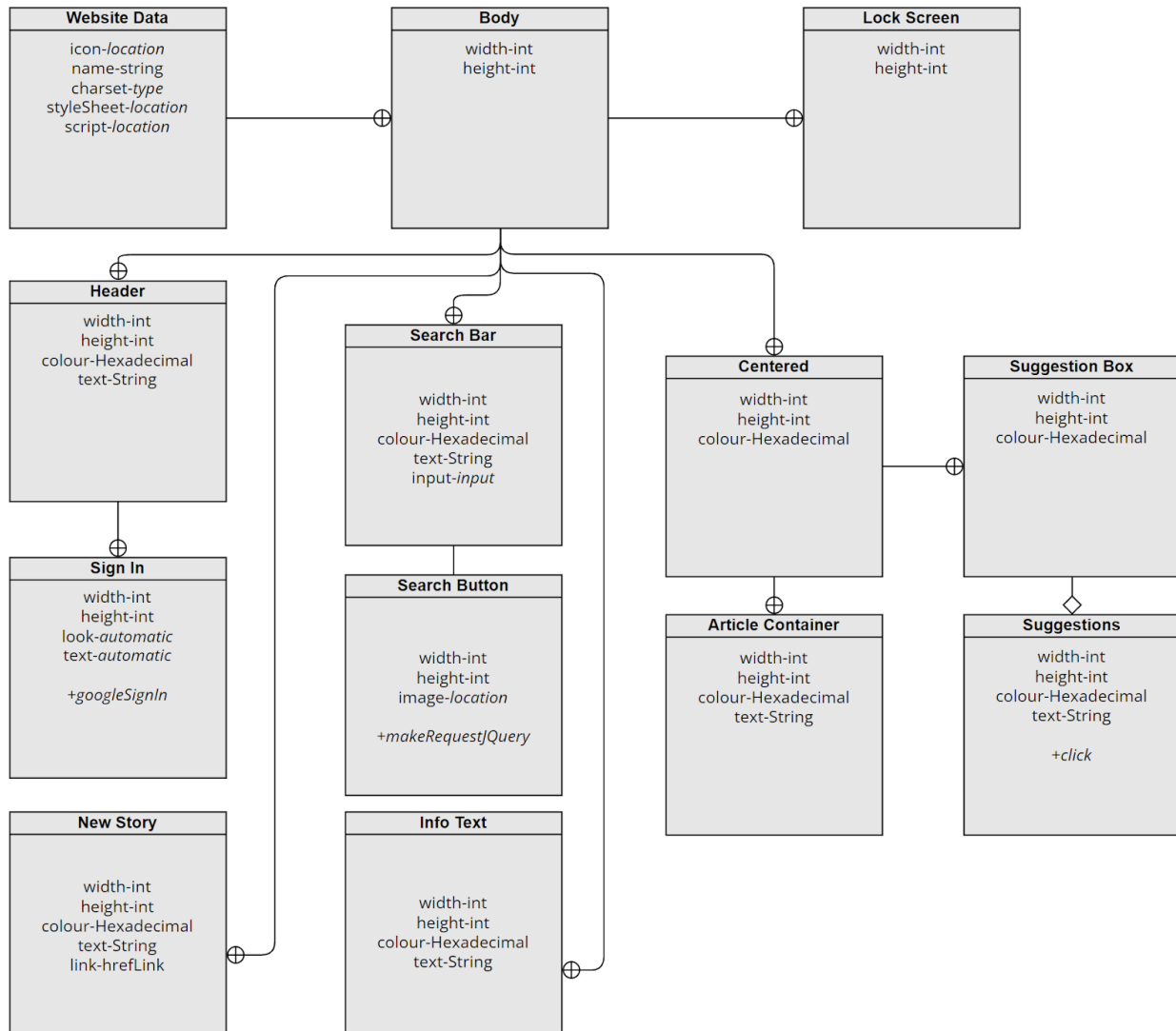
```
end if

//this assigns points to each story, we can then take the stories
with the most points, the most relevant, and send them back
```

Class Diagrams for the Website

Website Data

icon-*location*
name-string
charset-*type*
styleSheet-*location*
script-*location*

Body

width-int
height-int

Lock Screen

width-int
height-int

Header

width-int
height-int
colour-Hexadecimal
text-String

Search Bar

width-int
height-int
colour-Hexadecimal
text-String
input-*input*

Centered

width-int
height-int
colour-Hexadecimal

Suggestion Box

width-int
height-int
colour-Hexadecimal

Sign In

width-int
height-int
look-*automatic*
text-*automatic*

+*googleSignIn*

Search Button

width-int
height-int
image-*location*

+*makeRequestJQuery*

Article Container

width-int
height-int
colour-Hexadecimal
text-String

Suggestions

width-int
height-int
colour-Hexadecimal
text-String

+*click*

New Story

width-int
height-int
colour-Hexadecimal
text-String
link-hrefLink

Info Text

width-int
height-int
colour-Hexadecimal
text-String

1.3.1 Website Home Page and 1.3.3 Website Story Page

I Remember When...

This form allows you to input a story to the site. Just fill in the details below.

* Required

Email address *

Your email

Your name *

Your answer

Title of your Story *

Your answer

Next

Page 1 of 5

The First Page

I Remember When...

Tags

Add tags to categorise your story! These will be used to find stories on the website.

Tags for your story *

- [ ] <Family member name>
- [ ] <Family member name 2>
- [ ] <Family member name 3>
- [ ] <Family member name x...>
- [ ] Pets
- [ ] Kids
- [ ] Funny
- [ ] Sad
- [ ] Wholesome
- [ ] Celebration
- [ ] Trips
- [ ] Wilmington

The Second Page

I Remember When...

Story

Write your Story here *

Your answer

Back   Next

Page 3 of 5

The Third Page

I Remember When...

Date

What month did it occur in?

○ January

○ February

○ March

○ April

○ May

○ June

○ July

○ August

○ September

○ October

○ November

○ December

What year did it occur in?

Your answer

Back   Next   Page 4 of 5

The Fourth Page

The Fifth Page

<u>The Website</u>

Both website pages will have a sign in function in the top right to access the site and the New Story button which will be linked to the input form.

The home page will act as the main page of the site.
> -The home page has a search bar, frequent searches, most recent and most viewed stories and body text about the website at the bottom.

After searching for a story, the story page will open.
> -The story page will have a box with the dates, a box for the title, story and author/submitter as well as any notes which will be at the bottom. This box will be dynamic and will grow vertically if needed to fit in the text.
> -The story page will display 5 stories vertically, each in their own box. If the reader wants more, they can press a more button at the bottom to go to the next 5 stories.

I Remember When...

+ NEW STORY

Search for tags, dates or titles

Frequent Searches:

Lorem Ipsum
25/12/0000

Last added

25/12/0000

Most viewed

Lorem Ipsum
Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus lectus lorem, condimentum sed porttitor id, vestibulum sit amet lectus. Vestibulum sapien enim, eleifend sed augue eu, sollicitudin facilisis ante. Pellentesque elementum, velit pellentesque consectetur feugiat, enim quam hendrerit odio, eget accumsan elit sem nec mi. Mauris sed condimentum erat. Phasellus mattis ultrices tortor, quis tincidunt purus tempor sit amet. Phasellus in nunc vestibulum, aliquam felis at, tempor sapien. Cras urna dolor, luctus sit amet varius eu, vehicula eget lacus.

The Home Page of the Website

I Remember When...

Date: DD/MM/YYYY

Date of story: DD/MM/YYYY

Title Here

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus lectus lorem, condimentum sed porttitor id, vestibulum sit amet lectus. Vestibulum sapien enim, eleifend sed augue eu, sollicitudin facilisis ante. Pellentesque elementum, velit pellentesque consectetur feugiat, enim quam hendrerit odio, eget accumsan elit sem nec mi. Mauris sed condimentum erat. Phasellus mattis ultrices tortor, quis tincidunt purus tempor sit amet. Phasellus in nunc vestibulum, aliquam felis at, tempor sapien. Cras urna dolor, luctus sit amet varius eu, vehicula eget lacus. Lorem Ipsum Dolor Phasellus mattis ultrices tortor, quis tincidunt purus tempor sit amet. Phasellus in nunc vestibulum, aliquam felis at, tempor sapien. Cras urna dolor, luctus sit amet varius eu, vehicula eget lacus. Lorem Ipsum Dolor Phasellus mattis ultrices tortor, quis tincidunt purus tempor sit amet. Phasellus in nunc vestibulum, aliquam felis at, tempor sapien. Cras urna dolor, luctus sit amet varius eu, vehicula eget lacus.

-Name here

The Story Page of the Website

The blue hexadecimal colours used are, from dark to light: 05668D, 028090, 00A896, 02C39A
The grey are: 7D7D7D, B6B6B6
This is the colour scheme that was chosen by the client out of a preview that I had prepared.
I will use Javascript in the search bar to send the results in JSON to the server.

Test to see if it works

The test	Test method	Testing for:
Accessing the website	Enter the website's URL from different devices to see if clients are able to connect to the website.	Connection issues with the website and the website hoster.
Inputting a story	Go through the full process of inputting a story from the website home page. Use the link to get to the input form, input data and submit the form. (Optionally: check the database to see if it has been stored correctly.)	Issues in the process of submitting a story to the database.
Testing for issues with tags	Create a custom tag that is the same as a normal tag and see if there are any issues. Check google sheets to make sure the tags are being formatted correctly.	Issues with duplicate tags, errors due to tags and the formatting of tags.
Finding a story	Try and find the story from 'Inputting a story' using the search bar on the website. Test it with different combinations of existing and non-existing tags.	Issues in the process of retrieving a story from the database. See how well the search process handles unexpected inputs.
Finding different stories	Input several different stories with different tags as well as the same tags and try to find all of these stories using the search bar.	Issues in searching for a story.
Testing for possible flaws with story data	Enter extremely long stories with lots of tags or weird values to see what will happen to the database.	Issues with the input from submitting data and making sure that the database can cope with errors or issues without crashing or corrupting other data.
Testing for issues with searching.	Use incorrect tags, tags in different formats and dates in different formats. Try entering weird characters and symbols.	See if the system has an error or if it is not able to read the data.

Test the security system	Try and break into the security system assuming that you did not know the password. Try and sign in using different or similar google accounts. Ask someone else to try and break into the website.	Security issues.
Test the 'featured story' system	Manually alter the story data such as views and date to see if the 'featured story' function reacts as it should.	Issues with the 'featured story' system, "Most viewed" and "Last added" as well as the "Frequent searches".
Access the website from different devices	Access the website from a phone, a tablet and a computer and check if they are working correctly.	Issues with resolutions or unsupported software.
Overall test	Give the program to the client and see what they think or if they encounter any problems.	See if the client is happy with the project.
Testing by people.	Give the program to testers and see what they think or if they encounter any problems.	See if there are any problems with the project that I have not seen or thought of.