# Criterion C

Word count: 1089

## Techniques used

1. Django
   1. URLs
   2. Templates
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2. CSS
   1. Stylesheets
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## Django

Django is the a Python based web framework that is known for being simple and easy to learn, with the ability to create websites easily and efficiently. Working with Django has proved to be quite useful as it also includes many safety features, but most importantly, Django has helped me greatly in coding as it uses very easy and basic python. Here are the techniques that I have had to use while coding my website.

### URLs

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In Django the usage of URLs is very common as you need to create one for every page. These are all the main URLs that correspond to a page in the website. A technique that I used in the URLs is the usage of dynamic URLs, this is shown the last path. Inside that path the first element, the usage of <int:my\_id> creates a dynamic URL, this is because depending on the news you are looking at my\_id is going to be a different value, starting from 0. I needed to use this technique to allow my website to create news and have pages for them without having to create them manually. This is a great technique to use to enhance the automation of your websites in Django.

### Templates

Graphical user interface, text, application

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Within the templates of Django, I made sure to take advantage of using a base HTML template for my whole website. This prevented me from having to link all the spreadsheets, scripts, and create the menu as well as the footer for every page. The coding that made this work was to firstly code a Base.html file that contained the elements that every page would contain, then in that page, inside the body you add a place where the coding of the other pages will fit in, this is in between {% block content %} and {% endblock %}. To make sure this technique works you then need to add the first line of code in combination with the third line and last line, what this does is basically copy the code from this template and connect it to the inside of the base template and therefore when you load this template on the website you will always be loading the base template with it, if you use this technique on every template than you save up a lot of time. Definitely a really good time saver.

### Database

Graphical user interface, text, application, email

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The last technique I used that had to do with Django was the usage of the Database that comes with Django, for you to take advantage of this feature you need to know how to code a model. A model is what takes in the data and arranges it into the objects, and from objects you have the elements.

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Here you can see an example of the coding needed to create a model. The usage of the model helps a lot to make the website autonomous, this is because only with this model can you automatically create a fully coded HTML page without needing to actually code. I used this model to create the system that only needs the user to type in the data for each element in a page, which then transfer the data to the database, and from the database through the dynamic URL I created an autonomous system that creates the page of each new news created.

## CSS

CSS is the coding language used to design webpages, it is almost an extension to HTML as it is basically essential to designing a good webpage. In my case, I used many stylesheets, as well as various libraries like bootstrap, and fontawesome. These libraries are very useful to because they have already made classes with thousands of designs which save up time for any coder.

### Stylesheets

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Stylesheets are usually files of CSS that contain many classes like this. Personally for this project I have saved a lot of time by using libraries as mentioned before, and stylesheets are a must know technique for efficient and expert coders, stylesheets help make perfect, highly detailed, and easily linked CSS classes that can be used more than once unlike in-template CSS. They then need to be linked to the template you are using them in. In my case I am taking advantage of the base template so I only link the stylesheets once and can then use them anywhere. After linking them to the template for you to use the classes you need to put inside the HTML element class=”class that you want”, here is an example:

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One last important information about CSS stylesheets is that when using this technique just like normal python you can have classes inside a class, that is why you see the first class being in the <section>, then inside that class you have the next one which is being used in the <div>, and then inside the slider class there is the one being used in the <a> element. This can go on, which it does.

### In-Template Styles

This technique is quite useful when making small changes to different elements in HTML. I use it mainly to adjust the position of different elements to make them fit better. Here is an example:



I use the style function to adjust the margin and move around the image, this is quite useful as this means you do not have to go to the specific class you are using in the stylesheet and edit it, as this is very time consuming.

## Java Script

Java script is used in a very small amount in my project as it is not an easy language and it is not really needed as my goal was to make an automated system for the news as well as login and sign up, but it is still a very important language as it can be very useful in websites to create very good visual effects.

### Animations

To give a good look to my main page I decided to use a few different Java Script libraries to create a slideshow, the slideshow has 3 different pictures with important information on them. I also used Java Script to make a transparent effect on the menu in the main page which becomes darker the more you scroll, these two animations are extremely professional and are part of the technique of animations. It is good to know how to use Java Script when creating professional websites as it could create enhanced designs not achievable with CSS and HTML only. Overall an important technique that I tried my best to incorporate in my coding.