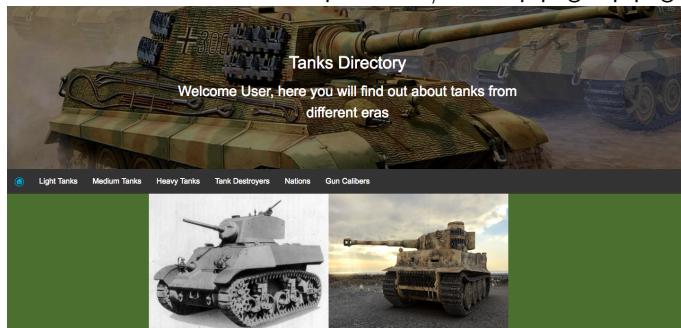


# Set09103 Coursework Report

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## 1 Introduction

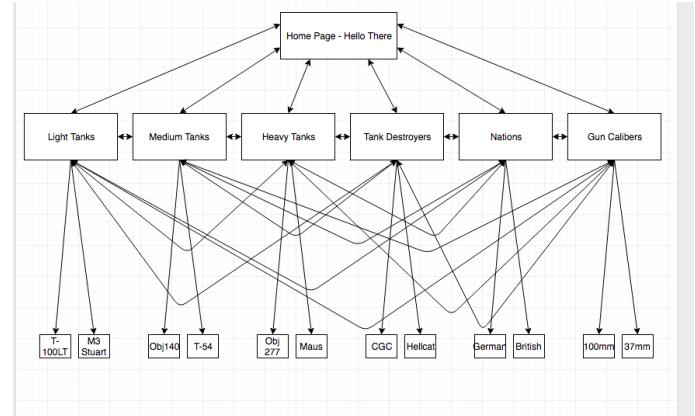
My web app is basically a directory for searching different types of tanks from different eras of pre-WW2 to about early noughties. The web app allows you to search in a multiple different ways such as looking for tanks by their type like heavy tanks, medium tanks etc. Another way would be to search for them by their nation which includes the tank giants such as Germany(WW2), Britain(WW2 and early noughties, Soviet(Russian now, WW2 and cold war), Americans(WW2) and among others etc. The final way you can search for a tank in my web app is by using its gun caliber to identify the tank you wish you find. All tanks in my web app have full descriptions about them and what their specs were/are.



The above screen shows my home page in all its glory, there is of course more at the below its just because my laptops screen resolution is slow (1440 x 900). But this shows what the home page is supposed to look like when the user first loads it up.

## 2 Design

I designed my web app so that all web pages could be linked together via a navigation bar so the user doesn't have the fiddle around with going backwards and getting lost inside the website itself.



Sort of hard to see and therefore understand but the gist of it is that all web pages connect to each other in some shape or form. The top box on the image being the homepage of which all pages connect to and the bottom 6 boxes are the different web pages (Heavy Tanks, Medium Tanks, Light Tanks, Tank Destroyers, Nations, and Gun Calibers) which all connect each other which is sort of hard to understand from my diagram but that is whats its meant to show. I haven't added all the tanks into the hierarchy because there is 16 of those plus 6 nations and 10 gun calibers so it would become very hard to read. So instead to show my point I have added 2 from each to give you a rough idea of what it looks like. Also to help make this easier the user can also use the URL to quickly get to a certain tank they wish to get to by doing <http://set09103.napier.ac.uk:9142/mediumtank/object140> or something similar, as long as the web page actually exists on the website then doing this technique will be an easy way to navigate my website, only thing you need to weary about is that its all lower case and no capitals. I did this to insure people don't have to keep hitting shift at certain points when they are typing in the URL and it will just cause confusion if the user should use a capital or not. So to avoid this I just made every URL on the web page lower case. If however the user does do a upper case letter it will redirect them to the correct page but only for Heavy, Medium, Light Tanks and Tank Destroyers all pages and not for individual tanks such as the link above because then there would be so many redirects. I went with a sort a grid type of display for all the pages apart from the information pages. This is achieved by making a div on the left and hand side that is so many pixels big and then the images start from where that div ends.



Light Tanks

Heavy Tanks



Light Tanks Med

T-100 LT ☆

M3 Stuart ☆

Sheridan ☆

Panzer II +

As you can see from the image its a 2x2 grid on the homepage with white space on each side of the images. I like this design because its quite nice on the eyes and fits well with the theme of the overall website. By clicking on these images it will take you to all the n Tanks (n being Heavy, Medium etc) that are listed on the website. This will also be displayed in a grid but depending on how many tanks there are it will either be a 2x2 or a 3x2. On pages that have 3 tanks on the top row there is no div so that all the tanks fit on page and then have several rows of tanks.



As you can see from the above image the tanks in a row of three with no white space spacing unlike the homepage. This should be the same on all screens of different resolutions where it fits the screen. It does mean the images are slightly bigger because there is more room for them but I like the design so whatever. I chose the colour green for each page of the website because I think that olive green(Hex Code 556B2F) works well with the theme of tanks because its in some of the camouflages that were used on tanks and are still used on some tanks in green terrained areas. I chose to use a nav bar across all pages to ensure the user can get to any web page on the website without too much hassle. This ensures the user cant get lost or stuck on a certain page.

Light Tanks Medium Tanks Heavy Tanks Tank Destroyers Nations Gun Calibers

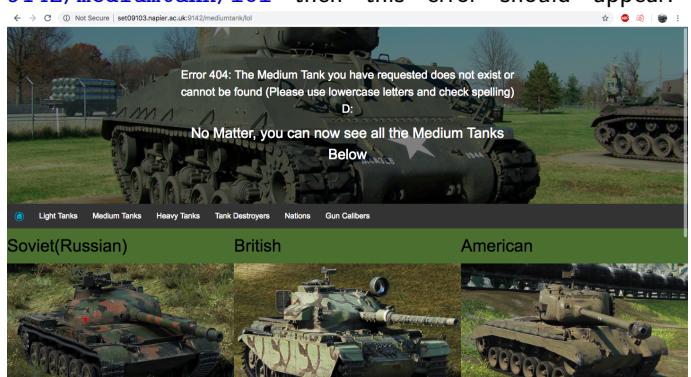
Sort of hard to see again but above is the nav bar for my website it includes all the web pages and a home button to get back to home. Each part of the nav bar has a down drop (bar the home button) which includes all the tanks that are apart of that tank listing. An Example of this is:

As you can see above this is an example for light tanks but they are all the same. The down drop shows the user what tanks are available to read about on the website and what country they are from (Red Star = Soviet, White Star = American and Black Cross = German). The final part of the design is the actual information pages themselves which are quite simple but are effective and include a blurb about the tank (e.g when it was made and such) and then a table about their specs (e.g their armour etc)

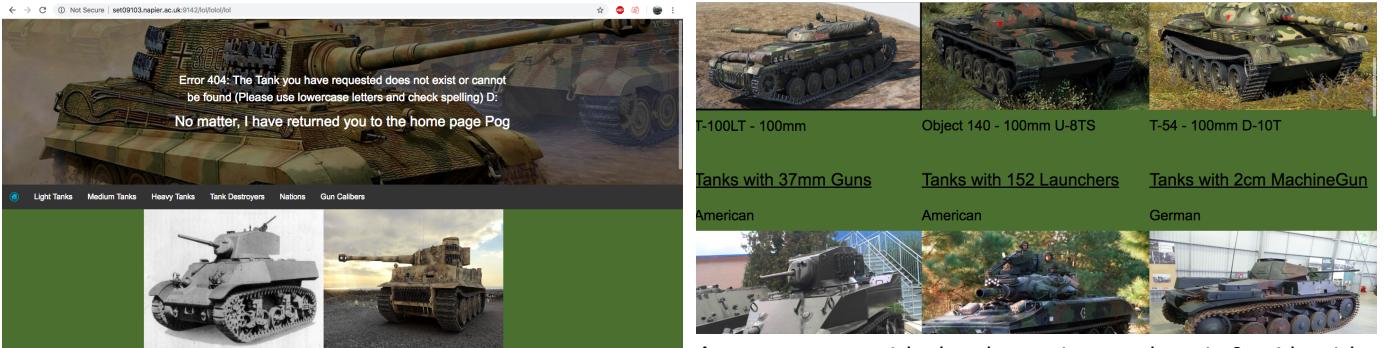
Developed in 1956–1958 at the Kirov Plant, Leningrad, under the supervision of Joseph Kotin. Two prototypes were produced and underwent trials from 1959 through 1960. A hull and a turret were produced for testing for shell resistance. The development was discontinued in the summer of 1960 due to insufficient development of certain systems and components. In addition, the vehicle did not demonstrate any advantage over the Object 770 heavy tank.

- Crew
  - Commander
  - Driver
  - Gunner
  - Loader
- Mobility
  - Engine Power: 600 hp
  - Speed Limit: 30/15 km/h
  - Turret: 33 deg/s
  - Power/WT Ratio: 17.27 hp/t
- Armour
  - Hull Armour: 140/112/50 mm
  - Turret Armour: 200/224/80 mm

The above picture shows the blurb about the tank and then it shows the information about the tank below regarding its crew, mobility and armour. Above the blurb is the nav bar and a picture of the tank with a title on it. I also have a custom Error 404 message appear on each page if the user tries to enter in a URL that doesn't exist then depending on what page they tried it from then a Error 404 will appear. If the user tries <http://set09103.napier.ac.uk:9142/mediumtank/lol> then this error should appear:



This tells the user that the page they have searched for doesn't exist or for them to check spelling and use lower case. Then it puts them back onto the medium tank page as that was the page they tried to search from. However, if they were to tries something like this <http://set09103.napier.ac.uk:9142/mediumtank/lol/lol> then this error should appear:



This tells the user the user the same thing as before but instead of dumping them at the page they searched it from because it has 2 different arguments it will place them back at the home page.

### 3 Enhancements

I think I would like to improved the actual font of the website but ran into issues with trying to get it to work for whatever reason so decided to give up as I had more pressing matters to try and fix and it really wasn't needed anyway. I would also have liked to improved on my design and perhaps use bootstrap but at the time felt bootstrap made life too easy so decided to take the harder path of actually creating the design from scratch than using a preset one. In terms of designs after looking into it more probably using black on the olive green wasn't the best although at least it can be read. I also may have wanted to add in a login system so that a User could perhaps add tanks to the page or say comment on a page or even editing that page if I had got something wrong or made a typo etc. I probably would have liked to have added JavaScript to my web app so there could be some interaction of some sort between the user and the page rather than having them just clicking links etc. I also I think the main thing I would have liked to change was to be using JSON files rather having to hard code every thing into the HTML which makes it look ugly and inefficient. It would have made the HTML more readable if some else were to read it as at the moment its sort of interesting but not too bad. Apart from those things I don't think I would have changed much else I do like how the website has turned out in the end.

### 4 Critical Evaluation

I think one feature that came out really well was the hyper links on the pictures in the grids, especially on the 'Gun Calibers' page because its done in rows of 3 in with several rows and looks so eye pleasing because all the pictures touch the sides of your screen and each other. grids.png grids.png

As you can see with the above picture, there is 2 grids with 3 tanks across them with all the pictures neatly touching each other and the side of the screen. They are hyper links that take the user to their respective tank information pages. Another feature of my web app that I think worked well was my navigation bar with my down drops as they are a good way of navigating through my web site. It allows the user to select the tank they wish to read about without going through the pictures at the bottom of the page and searching that. The nav bar overall just makes the journey that much easier and less frustrating if you go down the wrong patch. Another feature that I liked was that the titles of each of the pages changes in your browser depending on what tank you're on or page which I think is a really nice thing that is pretty out way but looks good in the browser as it shows what page you're on even if you have moved onto another tab that isn't apart of my website. That also brings me onto the other thing which is the favicon that I added even though it is really hard to see its quite a nice addition compared to the bit of paper you get if you don't have one on chrome. It also makes my Google default page look better as because I have been to my site sooooo often now it looks some what professional with the title and little tank favicon. A feature that I don't think went as well as I would have hoped would have been the information about the tanks. Mainly due to the fact its simple but looks ugly I really should have put a box around it or something but it looked fine viewing it on a white background but as soon as it went to screen it didn't look that good but not that bad either. It also doesn't help that there is A LOT of white space on those pages specially that I could have easily fixed with a picture or something like that but I had other pressing matters of the website that I had to attend to first. Another feature that I would have really liked to improve on would be the text on the calibers page even though I love how the images turned out the actual text above looks cluttered and needs a bit of TLC to sort them out. Perhaps with a different font or that I could have made them look a tad better than they do at the moment because currently just underlining them isn't helping my cause that much honestly. So overall there isn't too many features I don't like but I would just like to improve on them for the next coursework as I think this coursework was a good learning curve in Python Flask for the next one.

### 5 Personal Evaluation

I think I performed pretty good honestly but could have been better on some parts. I did have a problem of focusing on the task at hand 24/7 but that is always going to happen

with projects like this but it is something I would like to try and improve on. I think I have learned the basics of Python Flask can successfully create a fully working flask app. I have also learned how to do customized 404's links which adds a personal touch to the user and would work really well if i had a log in system to go along with it. A big challenge I faced which was my own doing was changing ALL the pictures in my web page from links into actual downloaded local files D:. I kept saying to myself I should probably do it and only did it once I was finished and it took so long. To do this I had to also change the syntax as using links compared to finding the pictures in your git repo is very much different and took a little bit of time googling to finally figure out what I needed to do. Then I hadn't realised that if I wanted to make those images hyper links or having them a certain height and width then you have to tell it to do that before telling it which picture you want to do that for, unlike HTML where you point to the picture then format it. Example below:

```
1 
```

So this caused a little bit of confusion to start off with but I eventually figured it out. Another problem I had to overcome was how jinja worked because I had done the work book but I initially was quite confused with the templates and how you could use a jinja if statement to display different things on the page from the same HTML page. After some quick research I was able to overcome without too much hassle and was fine from then on. So overall I think I have done what I set out to do in terms of my web page but would have loved to have just changed my design a bit and add a couple of more details but in the end I am content with what I have achieved and created.

## References

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<https://https://www.google.co.uk/>
- [4] CSS Font Stack for the Ubuntu font that I never got working D:  
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