

# Website Coursework Report

Lewis Jamieson 40273123@live.napier.ac.uk Edinburgh Napier University - Advanced Web Technologies (SET09103)

### 1 Title

The Game Zone

### 2 Introduction

The Game Zone is a website which catalogs games into multiple categories (Figure 1). It is based on website encyclopedias like Wikipedia. The user has the ability to find games in the different categories of; the genre of the game, the platform of which the game was released on, the publisher of the game and the year in which the first version of each game was released. The user can also has the ability to look at the complete list of games which are recorded on this website. There is also a section of the website where users can contact the manager of the website, which allows the user to request games to be recorded and report any errors or issues with the site. Contact is done through text boxes and an image input (Figure 2).



Figure 1: Home Screenshot - A screenshot of the home page showing the categories, with the sidebar open

## 3 Design

The website is linked together by a bootstrap side bar made by David Miller of the BlackrockDigital website. [1] The website has a menu button which links to the home, its subdirectories and the contact page(Figure 3). Every directory also has this menu button which opens the side bar, so the home page can be accessed anywhere on the site. From the home page, users go through each category. Selecting genre brings the user to where they can select first person shooter, strategy, platformer and role playing games. Year allows the user to look for games from a specific year. Platform lets



Figure 2: Contact Screenshot - A screenshot of the contact page showing the text boxes, image uploader and submit button, with the sidebar open

the user show games by what platform they were released on. Publishers shows games that were released by specific publishers. Games brings up all of the games stored on the website. When clicking on a game they are redirected to the game which is stored in the games directory, this was done so that where would not be a need for creating multiples of the same games for each category. Selecting a game would show its name, an image of the game [2], a list of the categories which the game fits in and a video related to the game [3] (Figure 4). Images for the games were collected from the website mobygames. The video were taken from Youtube. If the user tries to access a directory which does not exist they will be redirected to a custom 404 HTML page, which has the menu button allowing the user to go back to looking for games without clicking the go back button in their browser.

#### 4 Enhancements

The website could be improved. If a login feature had been implemented, the users would be able to go through the process of creating an account. With these accounts, a way for logged in users to edit existing pages and create new entries and categories would have been created. Implementing this would have probably meant changing the website, so that it used JSON format files and there would be an edit mode which would probably use Javascript. To edit the user would click the button and the page would editable and the changes would be sent to the python and saved on the JSON files. Doing this would be easier and safer than giving users access to the Python file directly though. Having a comment section at the bottom of each entry page would have allowed logged in visitors to have an area where they could discuss

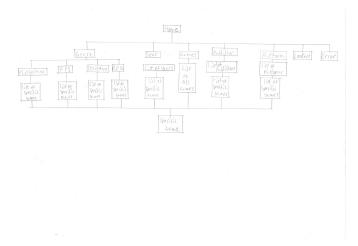


Figure 3: Hierarchy Sketch - A sketch of the website's hierarchy

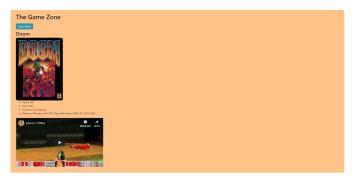


Figure 4: Entry Screenshot- A screenshot of the Doom (1993) entry

what they liked, disliked and speak in general about the game of the specific entry page. This would increase user activity on the site as there would be more to do than just looking for games. The entry pages could be improved if the list categories could be interactive and clicking on them would bring the user to a list of games which fit that category as it would have improved the movement around the site. If each entry had a blurb at the top of each page, explaining what the game was about, the visitors would have a better understanding of what each of the games were about. This idea could be combined with the comment section to create a recommendation page where user would recommend a game based on what other games they like. Then a new category which list all of the games, but be sorted by likes would be added. This would also increase user activity on the site as it would be an extra function to the site and make it an encyclopedia/social media hybrid. Adding an image or a logo to the website would make the website look more appealing which would make people more likely to use the website. For the contact page I believe if I increased the size of the text box the user would be able to read what they have typed more easily and they could see their whole message before they send it to the website manager.

### 5 Critical Evaluation

The home and sub-directories are shown using "base.html", the data itself is stored on the Python file "CWsite.py" and it is sent to the HTML using parameter passing [4]. I think it worked out well because if I did not use parameter passing, I would have to manage multiple HTML files and if I wanted to add a link to the sidebar I would have to make that change to every HTML. It is also more efficient as if I had HTML files for each category and entry that would not be space efficient and would possibly increase the loading time between website pages. Using the parameters to pass information to form the list of each category, sub-categories and list to form parts of the "href" attributes [5] was a good idea as it automates the hyperlink creation process, but the underscores in the lists are not so visually appealing. The Contact page uses two text forms, one image and a button [6]. The first text form is for a users name to individualize each message and file input so that they have names. The second text form is for messaging the website manager. The file input is for uploading an image to the website manager. The button is for submitting the text forms and image. The request flask object was used to get the input forms from the HTML to Python [7]. When submitting the message and image, the message is saved in a "txt" file, the image is saved as a "png" file and the name is used to name the two files. An if statement checks wherever or not a message or an image as been submitted [8], so users don't have to send both a message and an image to the website manager.

### 6 Personal Evaluation

In reflection, the most difficult issue I had was the image and text uploader as I had not wrote the python for uploading an image with the HTML templates and creating a new text file before. I overcame the issue of uploading the image by putting the render template parameter in the else part of the if statement instead of the return function. Initially I had to learn pythons input and output variables [9], I still didn't know how to create a new file though, but that issue was fixed by using the "w+" argument when opening a file [10]. Adding the bootstrap to the website was not hard to do, but it was annoving instead as putting in the code necessary for the side bar to work with each HTML was repetitive. I had planned on it being something to put in if I had time left. If I had planned out the inclusion of the bootstrap at the start in the project before creating the multiple HTMLs, implementing it would not have been as tedious as each HTML copy I would make would already have the side bar code inside the copies. The website is plain, if I had include an image or logo to the website as mentioned in the enhancements section this would not have been an issue. I feel that I mostly focused on the functionality of the website than the aesthetics, but that is okay because I feel this shows the basic understandings of python.

```
References
                                                                                                                                                                               https://www.mobygames.com/game/sonic-
                                                                                                                                                                                knuckles/cover-art/gameCoverld,12931/
                                                                                                                                                                                https://www.mobygames.com/game/alien-isolation/cover-
   [1] \ \ D. \ \ Miller, \ "https://github.com/blackrockdigital/startbootstagameCoverld, 360468/2000 and the startbootstagameCoverld, and the startbootstagameCoverld
              simple-sidebar."
                                                                                                                                                                                Videos were obtained from Youtube:
    [2] w3schools, "https://www.w3schools.com/html/html_images.asp.
                                                                                                                                                                                https://www.youtube.com/watch?v=7h0cgmvIrZw
    [3] \ w3 schools, ``https://www.w3 schools.com/html/html\_yout \\ \underline{ w4 beas p}''_{www.youtube.com/watch?v=jP2jI0BVG0w}. \\ [3] \ w3 schools, ``https://www.w3 schools.com/html/html\_yout \\ \underline{ w4 beas p}''_{www.youtube.com/watch?v=jP2jI0BVG0w}. \\ [3] \ w3 schools, ``https://www.w3 schools.com/html/html\_yout \\ \underline{ w4 beas p}''_{www.youtube.com/watch?v=jP2jI0BVG0w}. \\ [4] \ w3 schools, ``https://www.w3 schools.com/html/html\_yout \\ \underline{ w4 beas p}''_{www.youtube.com/watch?v=jP2jI0BVG0w}. \\ \ w3 schools, ``https://www.w3 schools.com/html/html_yout \\ \underline{ w4 beas p}''_{www.youtube.com/watch?v=jP2jI0BVG0w}. \\ \ w3 schools, \ w3 schools \\ \ w4 schools \\ \ w4
                                                                                                                                                                                https://www.youtube.com/watch?v=p-KIS4Sk76c
    [4] Jinja, "http://jinja.pocoo.org/docs/2.10/templates/."
                                                                                                                                                                                https://www.youtube.com/watch?v=RO90omga8D4
   [5] \ w3 schools, \ "https://www.w3 schools.com/html/html_attrihutes.asm"/www.youtube.com/watch?v=9 s Xgl3 Omfw8 to the come of the come
    [6] w3schools, "https://www.w3schools.com/html/html_formhthpsit/types/aspyrtube.com/watch?v=Zz6FNKawJBc
                                                                                                                                                                                https://www.youtube.com/watch?v = 9z36WDj2PcU
    [7] flask, "http://flask.pocoo.org/docs/1.0/quickstart/the-
                                                                                                                                                                               https://www.youtube.com/watch?v=I785cqiTPpw
               request-object."
                                                                                                                                                                               https://www.youtube.com/watch?v=e9BiUtINy4w
                                                                                                                                                                               https://www.youtube.com/watch?v=WP4R-wVeT9s
    [8] PythonCentral, "https://www.pythoncentral.io/python-
                                                                                                                                                                               https://www.youtube.com/watch?v=KInoJimjJzI
              null-equivalent-none/."
                                                                                                                                                                               https://www.youtube.com/watch?v=KanCiSGxSKM
   [9] Python, "https://docs.python.org/3/library/io.html."
                                                                                                                                                                               https://www.youtube.com/watch?v=mK0OFsWWzu4
                                                                                                                                                                               https://www.youtube.com/watch?v=8pLqpfwedGc
                                                        "https://www.guru99.com/reading-and-
                                                                                                                                                                               https://www.youtube.com/watch?v = zD2CLUFGPqI\\
              writing-files-in-python.html."
                                                                                                                                                                               https://www.youtube.com/watch?time_continue=5v=3RPYcfgKsNI
                                                                                                                                                                               https://www.youtube.com/watch?v=Cr3TCWPIDrw
                                                                                                                                                                               https://www.youtube.com/watch?v=JSRtYpNRoN0
7
                 Appendices
                                                                                                                                                                               https://www.youtube.com/watch?v=RpvGs7-X1X4
                                                                                                                                                                               https://www.youtube.com/watch?v=kJLFNYhq1YM
Images were obtain from MobyGames:
https://www.mobygames.com/game/xbox/halo-
combat-evolved/cover-art/gameCoverld,9494/
https://www.mobygames.com/game/halo-
2/cover-art/gameCoverld,38333/
https://www.mobygames.com/game/xbox360/halo-
3/cover-art/gameCoverld,94755/
https://www.mobygames.com/game/xbox360/halo-
wars/cover-art/gameCoverld,171627/
https://www.mobygames.com/game/doom/cover-
art/gameCoverld,470018/ https://www.mobygames.com/game/doom-
ii_/cover-art/gameCoverld,12331/
https://www.mobygames.com/game/doom___/promo/promolmageld,28455/
https://www.mobygames.com/game/pokmon-
red-version/cover-art/gameCoverld,30873/
https://www.mobygames.com/game/pokmon-
blue-version/cover-art/gameCoverld,14426/
https://www.mobygames.com/game/gameboy-
advance/pokmon-emerald-version/cover-
art/gameCoverld,47698/ https://www.mobygames.com/game/elder-
scrolls-iii-morrowind/cover-art/gameCoverld,16618/
https://www.mobygames.com/game/elder-
scrolls-v-skyrim/cover-art/gameCoverld,231760/
https://www.mobygames.com/game/x-com-
```

the-hedgehog/cover-art/game Coverld, 12913/

ufo-defense/cover-art/gameCoverId,166122/ https://www.mobygames.com/game/xcomenemy-unknown/cover-art/gameCoverId,343300/ https://www.mobygames.com/game/stellaris/cover-

of-iron-iv/cover-art/gameCoverld,462832/https://www.mobygames.com/game/super-mario-bros/cover-art/gameCoverld,14507/https://www.mobygames.com/game/super-mario-world/cover-art/gameCoverld,79892/https://www.mobygames.com/game/sonic-

art/gameCoverld,328430/ https://www.mobygames.com/game/hearts-