Artifacts of Ancient Rome Document – cn297

The theme of the website is artifacts from ancient Rome. I chose this as it gave me range of objects to model whilst also keeping to a theme. The page intends to inform the user of what some of Ancient Roman life is like.

JAVASCRIPT

JQuery_swap.js

To keep the page as an SPA (single page application), this script was created to show only the relevant information. Achieved by separating all hide/show sections and letting them be triggered when a button on the page is pressed. An example is from the homepage, where only the homepage is shown and nothing else, if we click the "Artifacts" navbar option, using its id "navModels", we are telling it to use the navModels function in this script, which shows the helmet title, interactions card, and the model descriptions.

GetJonData.js

This method was adapted from the labs to use the "apigetdata" function from the controller, which calls all the data stored in the database and encode it into a json format. This script us to access the encoded json to retrieve its data to be used for the model description, title, etc. It achieves this by assigning an id and then calling the jsonObj[row index][column] method. We then just need to assign an element in the SPA PHP file the set id and that information is displayed on the page.

Model_interaction.js

The top of this script defines four functions, which are used to change the sceneSwitch index of the models page. These functions are called when the buttons above the X3D models.

Moving down, the spin function is adapted from benskitchen.com. To get all the models to rotate, they all had to be assigned a separate "nameSpacename", so model__RotationTimer will rotate the helmet, model2__RotationTimer2 will rotate the ring, and model3__RotationTimer3 will rotate the coin. The vase does not have a rotate feature because instead of a spin I tried to implement the vase exploding. In 3ds Max this was achieved by adding a particle array and assigning it to the vase. However, when it came to implementing this into the x3d and javascript code I could not figure out how to do it. The stop rotation method was same in the same manner.

The animateModel/2/3 methods all work the same but for different namespaces. All adapted from the code given in the labs.

The increase.devreaseOmniIntensity functions control the intensity value of the helmet's omni lights. Each time the the function is called the intensity variable is increase/decreased by 0.1 and then sent to each omni light. The intensity variable cannot go above 0.9 or below 0.

The wireframe function was adapted from the live feedback site's github code for lab 9.

The camera"Direction" methods are adapted from the live feed back site. There are 3 cameras, front, side and back. As all the models are in the same scene, and are just switched out, the carmeras are the from the helmet x3d file. All the models are visible from these viewports.

Controller.php

The MVC controller was adapted from the lab 9 github to have the home page be loaded when the index.php file is called. To get the data onto the page a table must be created which the data is then inserted into. To get the information the data is encoded into json format.

Model.php

The model file was altered from the one given in the labs to hold the model title, description, etc.

homeView.php

This file holds the html data for the website. Things of note are the carousel, gradient buttons, model creation method dropdown and gallery.

The carousel was adapted from the carousel example given at https://v4-alpha.getbootstrap.com/components/carousel/. The images used were of the destroyed city Pompeii. The jumbotron was also adapted from w3 and has css style rules that set the size of the jumbotron so that when the screen is smaller the text stays on the jumbotron.

The collapsible bar that shows/hides the model creation info was adapted from another w3school example, https://www.w3schools.com/bootstrap4/bootstrap_collapse.asp. I choose to present the information his way because, when closed, the page has more space to display the interaction buttons and the artefact description at the bottom.

The gradient buttons were inspired by this page - https://bootsnipp.com/snippets/7KaXj. I matched the initial colour stop of the gradient to the same as colour as the card its on. The colour stop that moves when hovered is also the same colour and the last colour stop is made into a light grey. I also added addition css style rules to change the font colour to white, to contrast with the dark theme of the site. I also changed the border colour when the mouse comes off the button to white. Finally I changed the border radius to zero to give the straight edge look. Though I did initially intend on having the gradient buttons the same for smaller screens, I decided that as you don't "hover" on smallscreens, the effect would be wasted. So I left the it at its default state.

Finally the gallery was adapted from the labs gallery_generator.js script, the images displayed are all rendered images of the models, using the standard renderer in 3DS MAX.

Models Reference Images

Coin - http://www.edgarlowen.com/gemellus-11366.jpg

Vase - https://www.ebay.co.uk/itm/Original-ancient-Roman-ceramic-vessel-artifact-Jug-Vase-pottery-Kylix-guttus-3AD-/292356815251

Helmet - http://downloads.bbc.co.uk/kandl/activities/zchf34j/images/helmet_t.jpg

Ring - http://ercolano.beniculturali.it/i-tesori/

Artifacts Info References

Coin - https://en.wikipedia.org/wiki/Roman_currency , http://www.edgarlowen.com/roman-imperial-coins-12-caesars.shtml

Vase - https://en.wikipedia.org/wiki/Ancient_Roman_pottery

Helmet - https://en.wikipedia.org/wiki/Galea_(helmet)

Ring - https://en.wikipedia.org/wiki/Herculaneum

Homepage card refrences

Roman army text taken from -> https://www.historyonthenet.com/the-romans-the-roman-army/

Classist devide - https://en.wikipedia.org/wiki/Social_class_in_ancient_Rome

Roman Currency - http://www.britishmuseum.org/explore/themes/money/the_origins_of_coinage.aspx