Professional Development (6G5Z1008_1516_9Z6)

THALES GROUP SERVICES LIMITED

Team Role	:	Sub Project
Task	:	To Design Website
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Executive Summary

This report outlines the design of website about Thales Group. This website is designed for the young children aged 10-15 years to get to know what kind of products they develop and generate interest in the programming language to create those kind of products. This website familiarise the children at early age to get involved in programming. They believe today's children are future Engineers.

The website provides information about Thales Products such as: Aerospace, Space, Defence, Transportation, Security. This website also provides information on how to install python on your PC and as a beginner to help walk students through various syntax, small examples of Python Programming language is attached to the website to download or to view as pdf on the screen as tutorials. It also provides tutorials on how to install Minecraft Raspberry Pi and tutorials to use it.

In addition the information contained in the categories above, useful quick reference guides are provided. These reference guides include HTML code snippets, colour codes and style sheet. Links to other websites are included at the end of each section to help supplement the extensive information provided.

This website is an excellent resource for school children aged 10-15 and even younger or older than the age group since they can browse through the website and gain quite a lot of information about the company and the programming language.

Report Contents

Introduction

Thales designs and builds electrical systems and provides services, systems and functions for all types of aircrafts including commercial airliners, regional business aircrafts, and helicopters. Thales is a

partner of air, land, naval and joint defence forces. They provide solutions for surveillance, communications and combat missions. Working with government agencies, local authorities and civil operators, they develop solutions to protect citizens, sensitive data and critical infrastructure.

Thales is a multinational company has offices at Africa, Asia, Europe, Oceania, North America and South America.

Overview

Firstly, the aim of this project was to take responsibility in the allotted sub project, work efficiently in order to achieve the goal on time providing the designed website. The use of the social media was incorporated in order to spread the word about the company and to grow the community.

Secondly, Thales has an existing website which is not very user friendly. There is too much of information in the website and it is very complicated to use by the children. In order for the site to be attractive and pleasing to the eyes, website layout, font, colour, number of pictures usage in the page, in a way, complete renovation was required.

Lastly, to overcome the problem of the company branding, same colour scheme to the header and menu with little animation was retained. Different look to the website with good font colours and font size made the website look more appealing and eye catching. It is a complete information website.

Thales regularly host events in various locations and in order to support these events, especially with the younger students, the need for innovative solutions to engage and inspire the Engineers of tomorrow. So we created an interactive game to showcase their business and innovative products to young people in the age range 10-15. The Minecraft is a popular game with people of various ages, especially children. One of the task was to create a world in Minecraft that could be achieved on a Raspberry Pi using Python programming language. The world had a Thales theme and showcased Thales products and the work they do.

Requirements

- To research the sectors that Thales operates in.

- Thales innovative products.

- How to use Python API to manipulate the Minecraft engine.

- To give a brief about what is Minecraft

- Encouraging young children to use python programming language by giving easier options to start up and option to download Python tutorials

- This website is designed to target the age group 10-15 years. Design steps are given below.

Project Planning

Review and Assessment

Understanding the client requirements and research on Thales website was the important task at the initial stage. Reviewing the existing website and noting down the questions for the client about the stuff in the website they like and they don't like. Researching on similar children websites gave many ideas which eventually was integrated into this system.

Analysis

Initial meeting with the client, initial mails and assignment brief, discussion notes, telephone conversations and their existing website helped to come up with a realistic plan. Their innovative products gave an initial content to kick start with website. (Macronimous.com, 2016)

Specification Building

Preliminary specifications are drawn up by covering all of the requirement. The general layout is designed which looks like figure below.
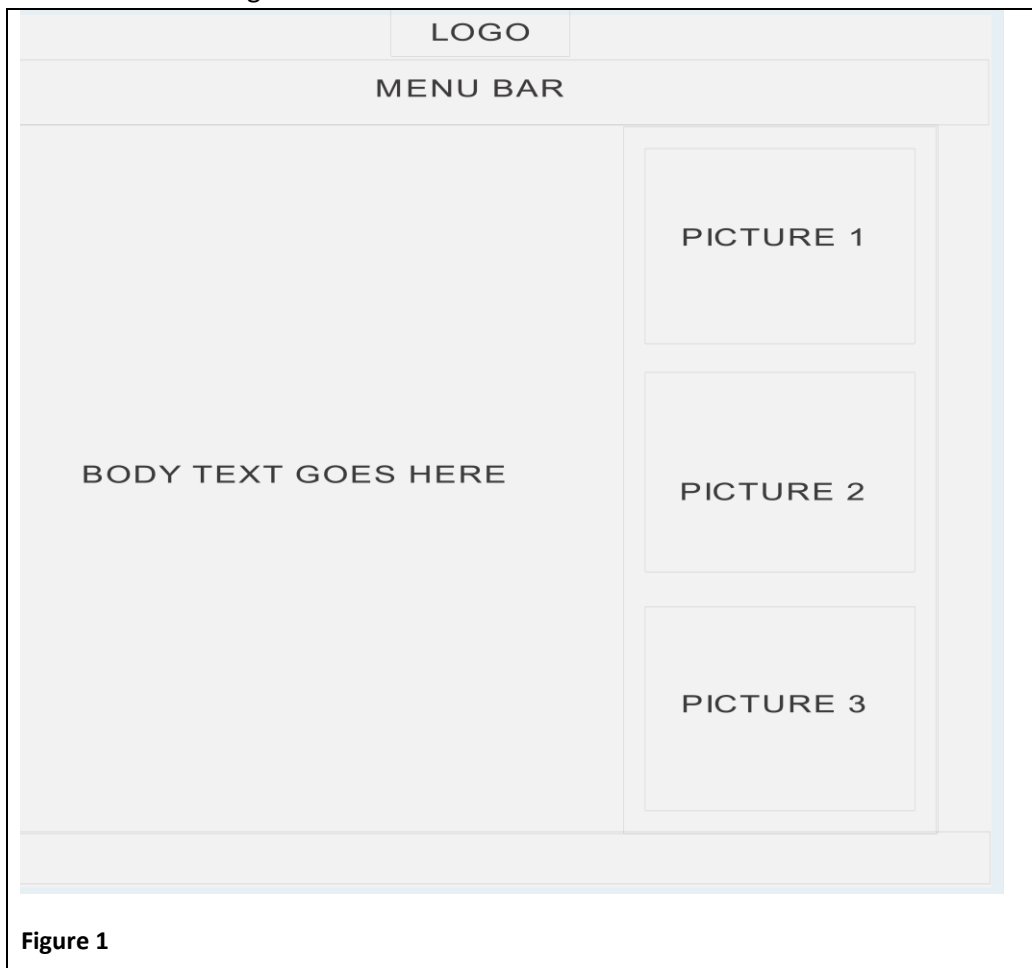
Figure 1

The design section further continued by site navigation. Designed a simple site map which is shown in the figure which shows the outline of the website created.

Figure 2
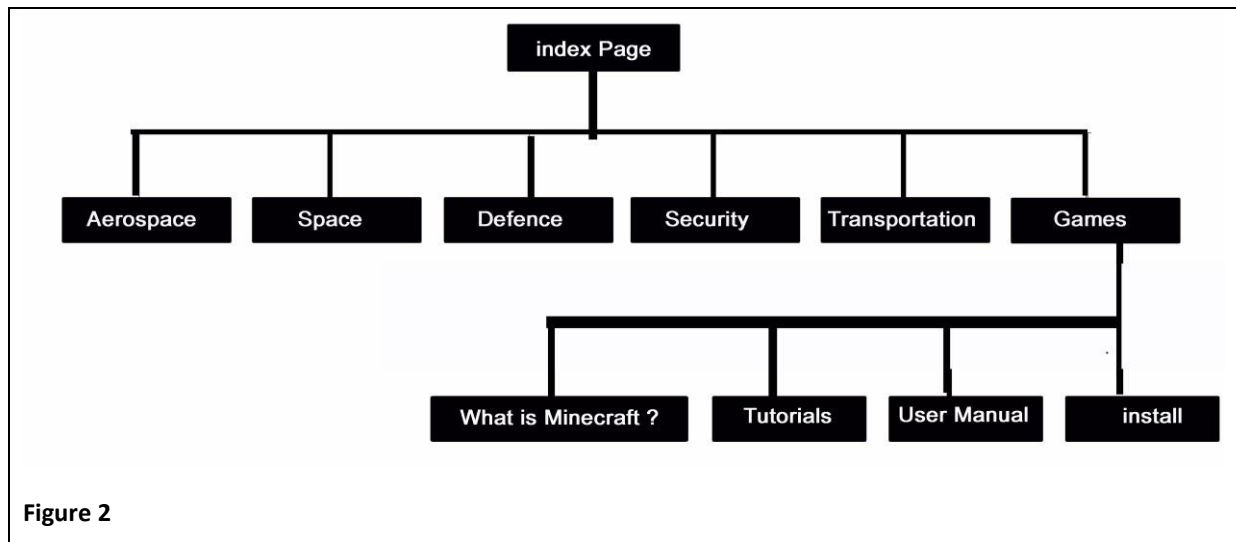
Story board ◄

To get a sense of websites' look and feel before it is actually designed, created the storyboard so the client (Thales) can have a look at it. This helped in the design and development phase. The storyboard helped the client to visualise the website. By laying out each page, designers got a sense of how much information should appear.

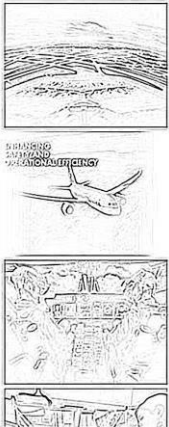| Thales home page with logo, header, footer and content.	Thales page footer layout

Thales Product – Aerospace Page layout

Thales Product – Defence Page layout

Thales Product – Security Page layout

Thales Product – Transportation Page layout
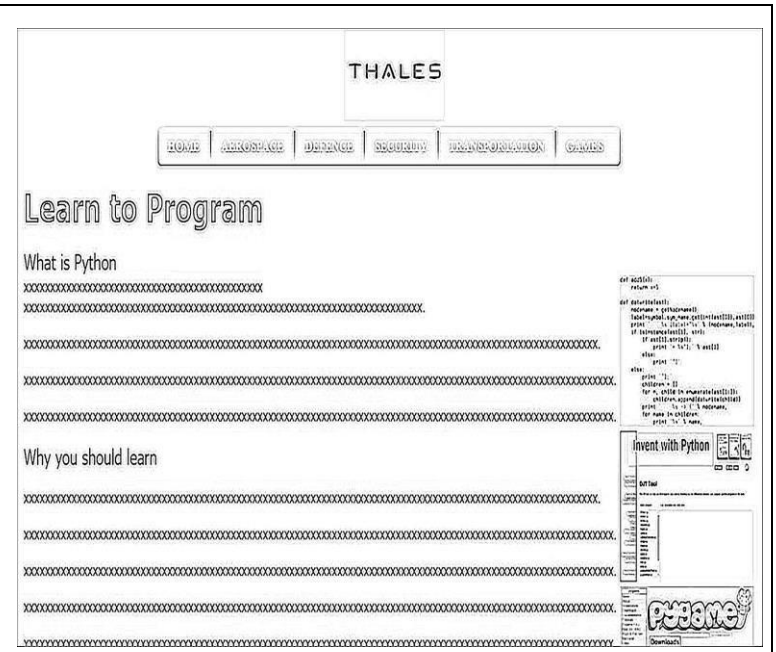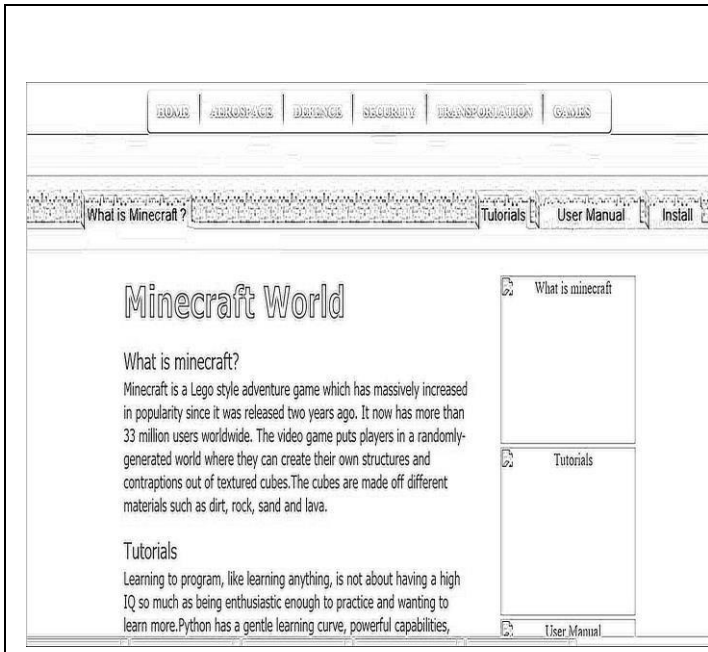
Navigate to Games – main Page	Python Tutorials Page
How to install Python	User Manual for Raspberry Pi
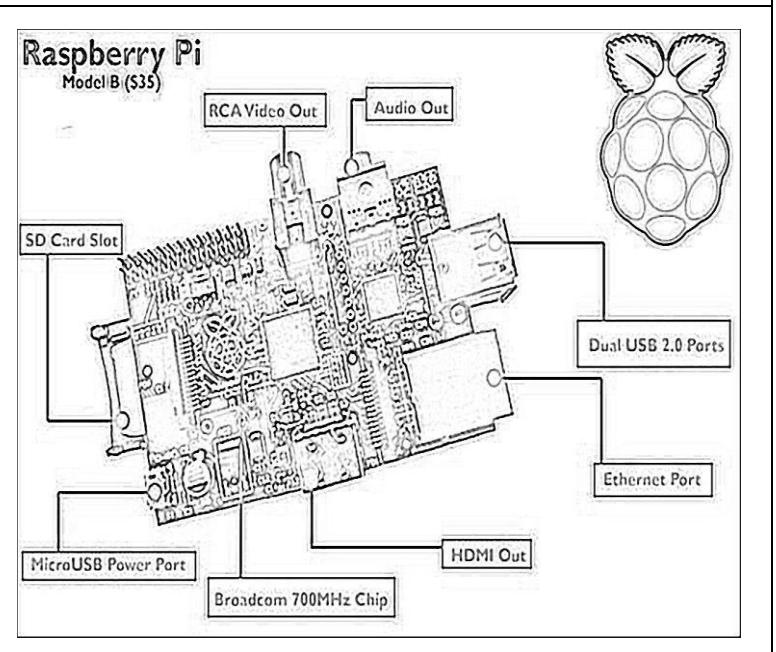
(Snapstouch.com, 2016)

Software's used

The software's used to design this information website were:

Photoshop: To Edit pictures and resizing to fit the purpose.

Notepad ++ : Typed the page contents and aligned writing html code and CSS code to design the layout and to make it look good.

Web Browsers: To view the page created and to test the pages.

Design and development

After the specification building, work on the website was commenced. Thales logo was placed on the centre of the page and below that a navigation bar was created as a prototype to show to the client as shown in the figure below.

Figure 3

Group leader showed the design to the clients and they were happy with it. After the feedback from the client and group leader, designing of the rest of the page was carried out.

Throughout the design phase website was tested for the quality assurance. It was necessary to obtain client approval on the design and the project plans. In this stage it was necessary to collect and prepare the data. By following Software Development Life Cycle, design process went smoothly and was within the scheduled deadlines at this stage. The following figure shows the web development life cycle. (Macronimous.com, 2016)

Figure 4
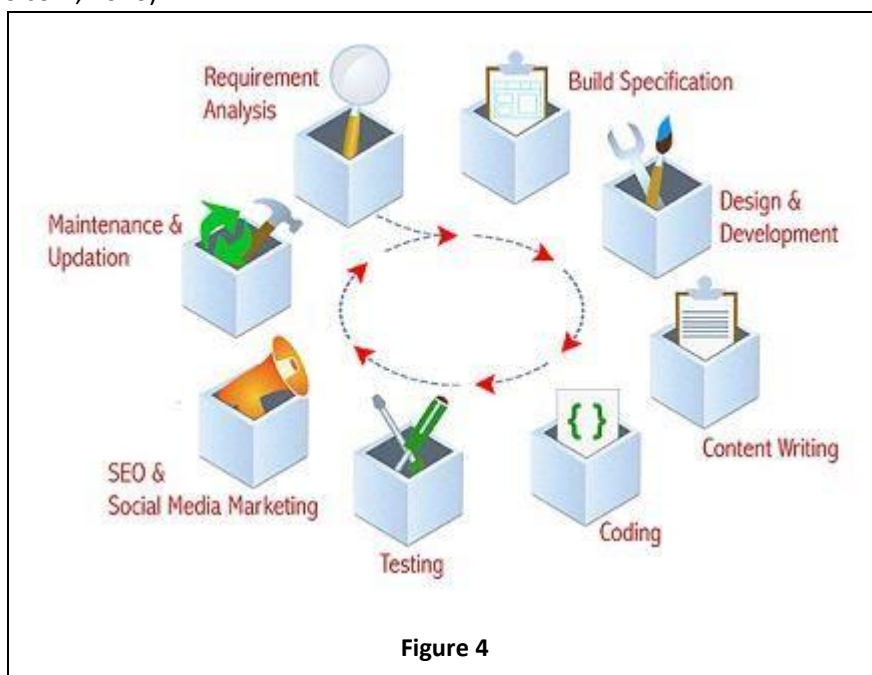
Content Writing and Coding

This phase was very necessary where actual research content was typed. The text was added in such a way as to utilize the design structure. Checked all written content for spelling and grammar, resized all the pictures using Photoshop and edited them to meet the purpose.

Thales Products were researched from their existing website https://www.thalesgroup.com/en. Some of the content is given below. They were coded using HTML and beautifully presented using CSS.

Aerospace Page - gives small brief about achievement in the aerospace i.e. Thales is the world's leading aerospace manufacturers. They provide hardware like cockpit Electronics, high performance flight deck system that includes LCD and smart head-up displays and laser GPS systems., technology and extensive support and training for all types of aircraft staff , vehicles includes training for pilots, maritime patrol aircraft and helicopters including realistic simulators. Controlling the air traffic, inflight entertainment, flight avionics, Electrical Systems and training in worldwide Military and Civil Training and simulation, navigation solutions, support & services.

Figure 5

Defence page - gives brief information about the products developed and deployed in the armed forces. Thales have expertise in intelligence, surveillance, and target acquisition. . Their technological understanding and strong electronic systems integration track record has seen them develop and perfect a leading portfolio of systems, products and services for the export market. Through life system support for customers on a global basis, including operational theatres, is another key strength. While their capability in military training/simulation enables forces to reduce costs. The nature of defence has changed so the air forces must respond to asymmetric threats. Navies operate in high-risk environments to protect onshore and offshore assets. Thales is World for tactical radios and on board communication solutions for land, air and naval forces.

Figure 6
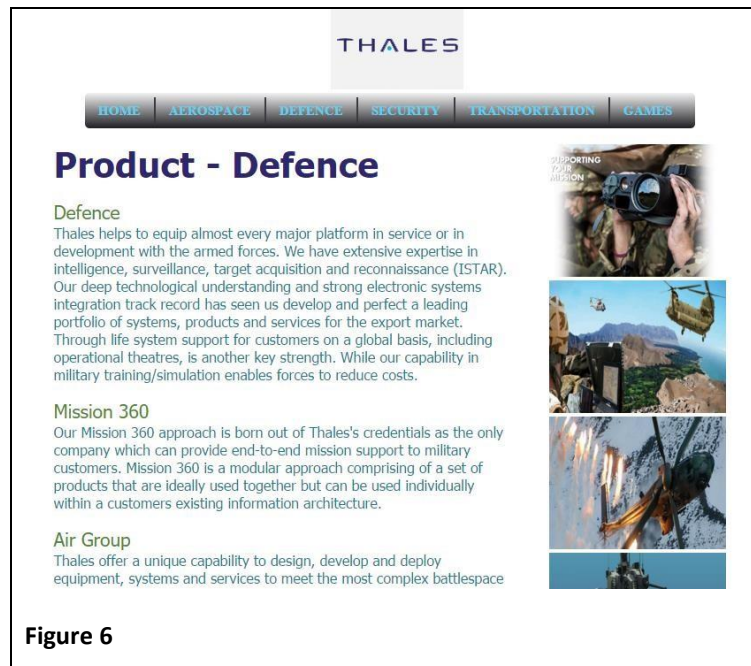
Security Page- gives information about National security, urban security, and critical infrastructure protection, critical information systems and cyber security. With growing threats from terrorism, organised crime, trafficking and cyberattacks, defence organisations alone are not fully equipped to deal with the changing risk environment.

Figure 7

Space Page - provides information about Alenia Space that has designed, integrated, tested, operated and delivered innovative space systems. Their products and services meet the needs of commercial and government customers from around the world, spanning the space, defence and security markets. Today, Thales Alenia Space is one of the main suppliers to the International Space Station, and an essential participant in systems to explore the Universe. Telecommunication, earth observation, Science and space exploration, navigation, orbital infrastructure and space transport are some of their sub activities.

Transportation page - provides information about transportation technology. Thales is one of the world's top suppliers of systems, solutions, equipment and services for mobility on railways, road and public networks. The ability to run networks smoothly and efficiently is crucial to economic growth and quality of life. Thales design, develop, and deliver equipment, systems and services, providing end-to-end solutions.
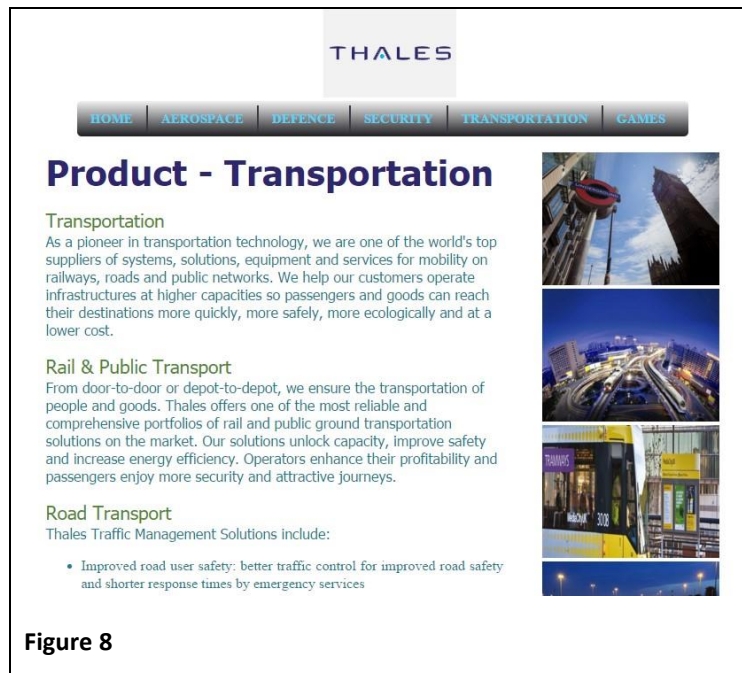
Figure 8

Minecraft page - gives information about what is Minecraft? , its popularity around the world, what you can do with the Minecraft game. This page has links to Python tutorials, how to install Python and Raspberry Pi Minecraft game user manual.

Figure 9

Tutorials page - shows information about What is Python? Why you should learn? And if the children have difficulties in spelling the words then online *diff tool* assistance is provided so that children shouldn't stop learning with small spelling errors. A descriptive and simple but fun way written tutorials are attached in pdf format to work at your own space and the online learning material is always available for the children.

Install page - gives information about from where you can download python at your PC at home. How to add Pygame library, adds ability to program games with graphics, sound and animation.
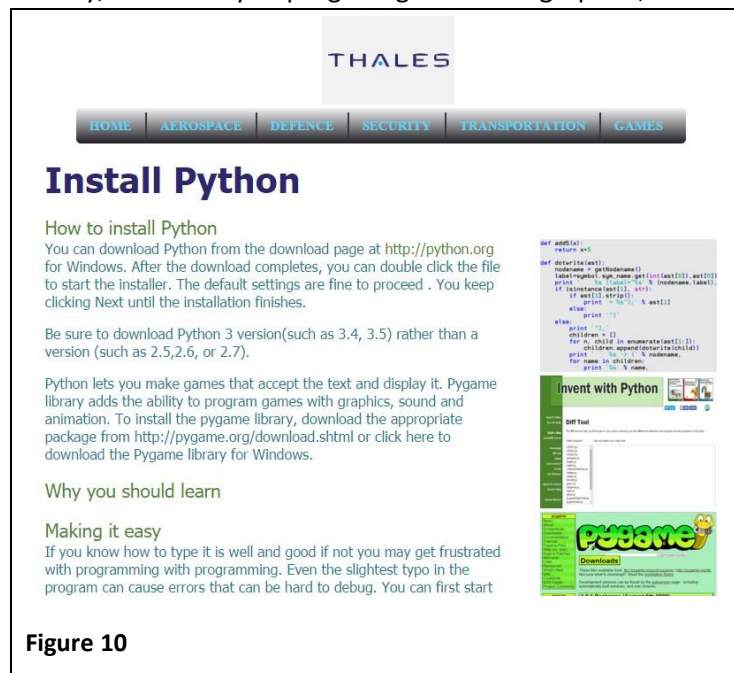

Figure 10

User Manual page - shows how to play the game, the different controls or keys used to move forward to break the bricks, build the wall or to create the Minecraft world.

Testing:

Regularly checking all the links and paths of the each web page was essential in this phase making sure to improve the quality. Checked the website in most of the browsers to check the layout and the content display.

Unit Testing after developing each page, checked for spelling and grammar mistakes, links to different pages etc. For testing purpose, used Agile technology after designing each page. Showed the team leader and clients for approval or suggestions that were amended later. After designing the whole website, testing was done by all the members of our team and they had checked all pages thoroughly to remove the bugs and errors. The in-house usability testing had been done for the better quality of the product.

Conclusion

To conclude, this report has described the steps that were followed to design and develop this website. Met the project requirements and produced an effective, educative and professional website. It was a good experience to work with a large team of 10 members. This opportunity enhanced the design skills and working on the live project which was an excellent experience. Developing a website during the first term helped to take this web design role.

References

Snapstouch.com. (2016). *Online tool to create sketch, painting, drawing, outline effects*. [online] Available at: http://www.snapstouch.com/Sketch.aspx [Accessed 12 Mar. 2016].

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