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| Date: | Task: | Evaluation: |
| 28/08/17 | Started work on Project Proposal, added ‘mechanics’ section (what will happen in the game) | About 42 lines written, some ideas will need revisiting. |
| 29/08/17 | Added an ‘Implementation’ Section (basic ideas as to how the mechanics of the game will work)  Resourced images for the sprites  Added new mechanic (mother ship)  Spelling and Grammar corrections | I originally intended to use AppJar to make the GUI but discovered it was not suitable and decided to change to Pyganim.  Images are not final, they may change. |
| 30/08/17 | Added ‘Requirements met?’ section  Added Pygame to the packages used for GUI | This will change as the project changes. |
| 1/09/17 | Added details on the projectiles of the aliens and how the aliens will move. |  |
| 3/09/17 | Added an array of records to the ‘Requirements met?’ section | Was originally going to use an array of objects to store the scores while they’re being manipulated but it doesn’t fill a requirement so I changed it. |
| 4/09/17 | Changed ‘array of records’ to ‘array of objects’  Removed recursion from ‘Requirements met?’ | I learnt that an array of objects does fill a requirement so I changed it back.  I am not certain that the program will use recursion so I removed it for now, I will add it back in if it is used. |
| 5/09/17 | Created Wireframes | Created wireframes for the menu, game loaded and game being played pages using balsamiq |
| 11/09/17  Still 11/09/17 | Added a general description of the game to the project proposal  Added detail on how the aliens will be stored in program.  Added target audience section | I re-wrote the intro to the project proposal to contain more details about the game as originally it had very little info.  I decided that storing the aliens in a 2D array would be best as it would allow me to access them accurately as there will be a grid of aliens (on the screen) and so using a 2D array to store them would allow them to be indexed according to where they are in the grid of aliens.  Any gender, age from 8-16 likes computers etc…. |
| 21/09/2017 | Started creating the end user survey | Not completed |
| 25/09/2017 | Finished making end user survey, renamed the project proposal file the project documentation file as it will now contain all documentation, added styles, added section titles, added to do notes | The styles and section titles make add consistency and aid in navigating the document, will add a glossary at the front when I learn how. |
| 26/09/2017 | Started work on Feasibility study, added more question to the survey and replaced the name slot with gender.  Had S2s and S3s fill out the survey  Started making the gantt chart  Put results of survey into a spreadsheet | I’m still not certain about certain aspects of feasibility studies, I will look at some examples to clarify.  2 of the surveyed people filled out the old survey by accident (not an issue just had them re fill out the new survey  The spreadsheet of results will allow me to analyse the data faster and better |
| 30/09/2017 | I added more survey data to the spreadsheet | Adding more data makes the survey results more accurate |
| 2/10/2017 | Completed Gantt chart | More will be added to gantt chart as the project progresses |
| 03/10/2017 | I started to analyse the survey data using excel | Using excel has allowed me to make graphs efficiently, this means my analysis will be of better quality. |
| 05/10/2017 | I analysed more data |  |
| 07/10/2017 | I finished analysing the data | I will need to go back and rephrase some of the analyses and conclusions |
| 08/10/2017 | I started work on the Requirement Specification | I was unsure of the meaning of User Requirements so I wrote both (requirements of the user/ requirements of the program) |
| 09/10/2017 | More work on the requirement specification  Started Re-Writing inputs and outputs section  Revisions to feasibility study  Added a resources list | I need to re-do the inputs and outputs section  Need to re-evaluate the legal section |
| 13/10/2017 | Started the test plan | Need to check how much detail is required |
| 19/10/2017 | Created test plans for the settings, instructions and game page | I will need to restructure the test plans to make the testing clearer and easier. |
| 21/10/2017 | Finished test plans | I still need to restructure the test plans possible adding testing method sections. |
| 30/10/2017 | Finished creating Wireframes, re-wrote the test plans for the first few pages | These will probably change as I change the test plans  The re-writes for the test plans are much better as they describe the method with which the test will be carried out in more detail. |
| 2/11/2017 | Progress check with teacher |  |
| 6/11/2017 | Re-wrote most of the game page test plan | The re-writes for the test plans are much better as they describe the method with which the test will be carried out in more detail. They also made me think even more about the functionality of the game and I ended up adding more detail to the inputs and outputs. |
| 7/11/2017 | Finished re-writing test plans, started adding wireframes to project documentations along with detail. Found the font to be used in project. | The test plans are now much more detailed and clear, when adding the wireframes to the documentation some changes were made to make the design clearer. |
| 10/11/2017 | Did more UI annotation |  |
| 12/11/2017 | Finished UI annotation | Doing this will make it easier to actually make the UI also meant that I further refined the UI. |
| 14/11/2017 | Started Writing pseudocode | Much more complex than previously thought, may change resources slightly and use a different library. |
| 17/11/2017 | Ditched original pseudocode and started a new approach using more classes, modified the test plan to test new validation required | The old approach was not working so well so I decided to restart making the program much more modular, this approach seems better for now though I encountered a small problem with buttons but seem to have fixed using more parameter passing. |
| 20/11/2017 | Restarted the pseudocode again, much more structured and easier to understand |  |
| 23/11/2017 | Added pseudocode for the homepage | Much more work needed |
| 23/11/2017 | Added more pseudocode for buttons | Need to think hard about how to do pass in pages for changing in buttons. |
| 2/11/2017 | Started to mess around with real code to get a better grasp of how to approach the problems | Will need to rewrite a lot of pseudocode, but I now have a much better understanding of how my code will now work. |
| 3/12/2017 | Restarted the pseudocode, | This pseudocode is much better as I now have a clearer understanding of how Pygame works |
| 7/12/2017 | Lots more pseudocode writing, changed project documentation | I discovered that records aren’t really a thing in python, I will therefore instead by using a class, because of this the project documentation needed updating |
| 8-11/12/2017 | Changing pages wasn’t working, I got it working but the game loop from the previous page never ended, this was not a big issue as it didn’t impact efficiency. | I ran into an issue with changing the page, where the game loop wouldn’t end (but it wouldn’t run either, another loop is started within it), I talked to the teacher and was told that not ending the loop isn’t the end of the world as it doesn’t impact efficiency (my point) and just to mention it in my evaluation. |
| 12-13/12/2017 | Wrote the instructions.  More pseudocode, made the pseudocode for the home, settings and instructions pages and created them. | Instructions were tested by giving to an elderly who isn’t super tech literate and asked if they were simple to understand and then asked what game they though was being referred to, they correctly identified space invaders.  Pages were created, not yet fully tested. |
| 13-20/12/2017 | Started writing pseudocode for the game page, will require a lot more work | Each design in pseudocode was tested using real code to ensure it’s validity this meant the code changed a lot, issues I ran into were, the built in pixel perfect collision detection wouldn’t work so I had to make do with a more primitive version, some collisions are detected but for reasons I do not understand the alien hit does not die. Projectile collision with the bunkers sometimes does not occur when it should, I was unable to find a fix for this. I will most likely twist these bugs into features in the instructions for example some aliens sometimes have shields (to explain aliens not dying when they shoud). |
| 6/2/2018 | Completed pseudocode for all the alien classes as well as the player and shot classes. | I may have to rewrite all the pseudocode as it may be too similar to actual code. |
| 7-22/2/2018 | Completed pseudocode and implementation as well as commenting on the implementation  Started rewriting the test plans | After implementing the graphics changing functionality the program became very ‘laggy’ so I had to scrap the idea, I made this clear in my pseudocode where I removed the code to actually change the source  And replaced the code where the images are created  While implementing I was able to make the code more efficient, so I went back and rewrote some pseudo code (did not annotate changes), this resulted in the pseudocode being more similar to my normal code (values)  I also realised that my testing is no longer apporopriate for the game and highscore pages so I will need to re-write them.  While re-writing the test plans I decided to re-design all of the test plans |
| 22/2 - 1/3/2018 | Made end user surveys and had people fill them out after using the program  Finished rewriting the test plans the and filled out the test plan  Started evaluating the project documentation | The end user survyes revealed that the font used in the program was tricky for users to read, especially in the settings page due to its small front size.  The evaluation will take a couple more days |
| 1 - 6/3/2018 | More evalutation | I added more sections to the evaluation including evaluations of the test plan and the results of the test plan for each page and an over – all evaluation section with both an over-all evaluation of the program itself , the development process and how well the program was implemented and my performance |
| 6-10/3/2018 | Finished evaluation and printed everything out | If I had more time I may have re-arranged the documentation to make it ‘flow’ a bit better. |