WRAP IT project plan

Our start up project is an online vinyl creator called WRAPIT! This is a custom vinyl creator that will be hosted on a website. The platform will offer a multitude of creative tools to allow users to create innovative designs, WRAP IT will also integrate and make use of AI. This will allow users to generate images from a simple text prompt. The application will have a secure login system with users being able to register and log in to their own WRAP IT accounts.

Our main goal is to develop a functional web application that allows user to use a variety of tools and AI to create custom vinyl’s. We want our login system to be secure and will use an online database to store usernames and passwords. We want to ensure that the website will also function on a variety of devices.

We want to have completed development by at least April of 2025 and hopefully have implemented all the features described in our original project bid. We will be utilizing modern technologies such as AI and local databases to help store/allocate our online resources. Our development cycles will be in 2 week sprints and feedback on our development at the end of these phases will be provided. We wanted to get the development of the basic designs finished in the first 2 sprints and start proper development of the web application just before Christmas, so we have something to present when the interim submission data rolls round.

When it comes to the user requirements of the project we will be looking at the functional and non-functional. Functional requirements include uses being able to utilize the creative tools presented on the website, for example the paint tool should let users draw freely with a virtual paint brush. The AI generation should include an interface to allow for a text prompt to be entered such as a text box. The image generated should solely rely on the user input. Users should be able to easily create an account if they haven’t registered to WRAPIT before. The details they enter here will then be saved to a table on a local database. They can then use this to securely log in. Login should be secure and use authentication to allow authorized users on the website.

Non-functional requirements will include keeping loading times down for pages, not reliant on internet speed, and responsiveness to the buttons and images implemented on the website being fast. Security for the database storing logins includes encrypting user passwords to add an extra layer of protection and the use of a secure HTTPS for secure web communication.

When it comes to what to expect from our project, starting with the login page. It will have two versions, a register and login page, the register page will allow new users to create an account by entering a username, their email and a secure password. These details will then saved to a table stored on Azure data studio with a Docker container. The website dashboard will include all the creative tools to be used. Currently we have the paint tool implemented in the application along with the AI generation tool. We would like to add functionality for an image adder, erasure tool and a fill tool. We will be getting the save feature functional along with allowing users to download their designs to their computer.

To achieve these future prospects we will be using resources from online guides, past coding experiences and previous projects we have done. Taking inspiration from existing applications.

Exclusions/things out of our project scope would include, printing physical designs, allowing for a user’s to upload vinyl’s to an online community and access to the website while being offline or disconnected from the internet.

Our team includes our Project leader and lead developer, coders and designers of the java implementation and a designer who is responsible for creating the prototypes and the layout for the website. We also have a client who will be overseeing our projects development and be signing off the project plan.

Our timeline has included multiple sprints, and we will continue to do so in two weeks intervals. The first sprint we had (week 1 and 2) was basic planning and development, where we assigned our team members and planned how we would be developing our project. The next sprint (week 3 and 4) included designing the website using low and high-fidelity prototypes. Basic spikes were created to test how parts of our project would be implemented and tested. The 3rd sprint (week 5 and 6) included the first implementation of the website and the final designs being presented. The basic website layout was created in HTML. Our current sprint to date, sprint 4 (week 7 to 8) included getting our project plan written and signed off and adding functionality to our website so we have something to present at the interim in January. In the coming sprints we would like to have our website fully functional by the final sprint. The design phase is to be finished by the time we start sprint 5 (week 9 to 10) after Christmas. We would also like to have all the parts of the website that will be possible to implement confirmed by the 6th sprint (week 11 and 12). At the moment we are still figuring out how feasible it will be to add all the parts listed in our brief.

Our application is similar to existing applications such as Canva and Adobe express which are applications that supply a variety of design tools but lack AI powered implementations. Hence making our project somewhat unique in design when looking at the overall online spectrum.

Our WBS will include planning and designing which was the development of what our project would be and the high/low fidelity designs created. Our front end development includes development of the HTML code and website along with buttons for design functionality and the integration of the AI API. Back end development will include the development of the database for the login and registrations function. Along with creating the code for the AI API. Testing will include gathering potential users and utilization of all the features implemented to make sure they all work as correctly as possible. Testing members will probably be confined to our development team. Deployment will be adding our code to a proper webserver, instead of being on a localhost for testing and development.

Risks to our project would include data breaches and user data being leaked, along with the AI API being used for malicious image generation. To mitigate these risks we have added encryption to user data as well as monitoring the use of the API.

Our communication plan currently stands as having our start-up meeting with our client every sprint, as for development we talk on a group chat to inform each other of development updates. We also meet in person as a group every week to work on our project together and help each other out. Our budget for this project has been very low so far, with 5 pounds being used to utilize Chat GPTs image generation API. Our project scope shouldn’t change much but project features could be added or deleted. We will need to inform our client to any of these.

EVIDENCE OF LSEP REQUIREMENTS

Social, Legal and ethical aspects to consider when creating the project

Social aspects

• Users may try to upload or generate inappropriate images to use in the designs or try to add offensive or hateful phrases to the design. To prevent this when the website goes live, content moderation may be necessary to ensure that hateful or illegal content is not shared through the site. We could also implement a reporting system that allows users to report others designs for said content and have it removed.

• We would need to ensure the privacy of users and only allow others to look at their designs when they have allowed it. This could be achieved through the implementation of a system that allows users to set their designs as public and private.

• A possible consideration if we were to allow user interaction on the website such as through comments on other designs would be the users safety and privacy and allowing users to prevent people from interacting with them if necessary, such as through blocking other users.

• Another consideration to be made is its accessibility and inclusivity to those with disabilities. We may need to ensure that the symbols for each of its functions are big and clear so that it is easy for those with disabilities to navigate.

Ethical aspects

• Something we may need to take into consideration is that users could upload copyrighted material produced by another artist and claim that it is their own. We could try to find a way around this by ensuring that copyrighted material is not allowed on the website and that original artists are properly credited.

• A possible ethical aspect to consider is the use of AI. The AI we will be using could have been taught on images that the original artist did not consent to the use of. We may need to make users fully aware of what sections of our website involve the use of AI.

• We may need to collect user data for our website and so it may be important to ask for consent from the users to collect this.

• We may need to ensure that the user has an option to be anonymous on the site in order to protect their privacy if needed.

• It is important to focus on the environmental impact that our website could have and to ensure that it is as eco-friendly as possible by making sure its efficient and has a low carbon footprint.

Legal

• As previously mentioned users could upload copyrighted images to the site which would infringe on the Copyright, Designs and Patents Act 1988. As a result, images may need to be regulated to prevent this from happening.

• When it comes to collecting users data we will need to comply with the General Data Protection Regulation and ensure that users have consented to having their data collected and are able to access and delete the data held about them at any time.

• We will need to ensure that we have clear and comprehensive contracts in the form of Terms of Service and User Agreements. These may need to include disclaimers in the case that the tools are used for damaging purposes, to ensure that the platform is not held liable.