SW Engineering CSC648/848 Section 01 Summer 2017

“PixSale”

Team Number 04

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Milestone 1

06/30/2017

Revision History

Version	Action	Approval	Date
1.0	Creation of original Milestone 1 document for submission	Team Lead/Editor	06/30/2017
2.0	Updated Milestone 1 with professor’s feedback	Team Lead/Editor	07/03/2017

Content and structure for Milestone 1 document for review

1- Executive Summary

In today's modern world, product advertising requires heavy use of media technology to capture good, quality images that are used to sell a product. This necessity to continuously provide new and unique quality images, that can relate to a market audience, could potentially become a lucrative form of side work or hobby for people who already invest a good amount of their time capturing images. As people spend more and more of their time online, many could benefit from selling videos and pictures they take on their daily basis to buyers or agencies. To this end, pioneers that provides such platforms and services to sell such images could profit from such sales. Our project consist of creating a website where people can upload their images for sale and for potential customers to browse and buy the images they may want or need. Some competitors such as Etsy.com provides this service at a very attractive price. They keep 3.5% of the sale price, which is one of the lowest and least complicated sale's structure out there. However, because they sell many more products than just pictures, this section is not easy to browse and find on their site and people may not even know Etsy sells photos.

Our website would be entirely dedicated to sell videos and pictures which would make it much easier to browse for them. We will emulate Amazon's search engine to provide customers with a quick and easy way to find desired photos/videos, thus providing a great and satisfying customer experience. Our price commision initially would probably be similarly low to Etsy in order to gain traffic and make it attractive for people to sell their images.

We are students from San Francisco State University and the tentative name for our project is PixSale. We are small team of students operating as a small startup while learning and applying basic software engineering principles.

2- Use Cases

Guest - John navigates to PixSale's homepage to browse some **media**. He immediately notices how easy it is to browse and search through the categories to find his favorite pictures of the beach. He chooses an image and is shown a larger sample of the image, with a short description and price on the side. John adds it to his **cart** with one simple button, and after browsing a short while longer decides to choose check out. Upon doing so, he is prompted with an option to become a registered user or to continue browsing. He decides to become a **registered user** so he can continue buying pictures later on for his portfolio, and is prompted for his full name and email, and it was as easy as that: John is registered.

Registered User - Laura goes to PixSale's homepage looking to sell some of her latest videos. Laura is already registered, so she logs in so she has access to her account. She then uploads her videos and sets a price and description for each video. The videos are immediately added to PixSale's entire catalog and can be found by other users. Laura also decides to buy an image of her favorite car so she quickly searches and finds a really nice image and places it in her cart. If Laura was not registered, she is only prompted to register after trying to checkout items from her cart. Since she's already registered, she decides to check out and is able to purchase the image immediately.

Administrator - Steve administers the PixSale website. He notices some inappropriate **media** has been uploaded on the site. Steve launches mySQL Workbench and logs into the PixSale database quickly. He does a quick select in SQL and finds the inappropriate ID of the item that has been uploaded. Steve proceeds to run a delete command in order to remove it from the database. Steve can also remove the user if the user has posted inappropriate content more than once.

3- Data Definition

Guest – Only able to search and browse images. Must register before uploading or purchasing media.

Registered User – Able to search, browse, upload, and purchase media. Must login before uploading and purchasing media. Must provide a valid name and email to create an account.

Admin – Able to access and modify the database. Must login before accessing database. Admin also has the same rights as a registered user.

Media – Media falls under

1) Images – Must contain title, thumbnail, category, price, registered user's name, brief description, and dimensions (length and width in pixels)

2) Videos – Must contain title, thumbnail, category, price, registered user's name, brief description, and video length (must only use minutes and seconds)

Account – A registered user's account. Account must have a username and password as well as a valid name and email.

Cart - A list of potential media that a user would like to purchase.

Database – Stores account information of registered users and admins. Stores images and videos that registered users upload.

4- Initial list of functional requirements

1. Guests shall be able to browse through media by category.
2. Guests shall be able to view descriptions and titles of media such as images and videos.
3. Guests shall be able to search through media without registering.
4. Guests shall be required to provide a valid name and email address upon registration.
5. Registered users shall be able to upload images and videos to the database.
6. Registered user's account information such as username, password, name, and email shall be stored on the database.
7. Registered users' passwords shall be encrypted on the database.
8. Guests shall be able to add media items to a cart as well as remove media items from the cart.
9. Registered users shall be able to purchase media.
10. Admins shall be required to login before accessing the database.
11. Admins shall be able to remove any media from the database.
12. Admins shall be able to remove any user from the database

5- List of non-functional requirements

1. Application shall be developed using class provided LAMP stack
2. Application shall be developed using pre-approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks must be explicitly approved by Anthony Souza on a case by case basis.
3. Application shall be hosted and deployed on Amazon Web Services as specified in the class
4. Application shall be optimized for standard desktop/laptop browsers, and must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome.
5. Application shall have responsive UI code so it can be adequately rendered on mobile devices but no mobile native app is to be developed
6. Data shall be stored in the MySQL database on the class server in the team's account
7. Application shall be deployed from the team's account on AWS
8. No more than 50 concurrent users shall be accessing the application at any time
9. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
10. The language used shall be English.
11. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.
12. Google analytics shall be added
13. Messaging between users shall be done only by class approved methods and not via e-mail clients in order to avoid issues of security with e-mail services.
14. Pay functionality (how to pay for goods and services) shall not be implemented.
15. Site security: basic best practices shall be applied (as covered in the class)
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. The website shall prominently display the following text on all pages "SFSU Software Engineering Project, Spring 2017. For Demonstration Only". (Important so as to not confuse this with a real application).

6- Competitive analysis

Key Features	PixSale	iStock	Dreamstime	GettyImages
Dropdown list for related search and suggestions	A list that tries to predict what the user is searching for	Shows a short list of predicted words	Shows predicted words and also suggestions for categories	Shows a short list of predicted words
Sorting photos and pictures into categories	Give each photo tags and keywords in order to sort them	Photos are sorted by tags and keywords	Photos are sorted by tags and keywords. Also split by category	Photos are sorted by tags and keywords
Registering	Registering by entering an email and password	Simple and easy way to register by using email	All you need is a email and password. Very simple	Able to sign up using facebook with one click
Easy payment method	Add photos into a cart and pay upon checkout with credit card	Buy each photo individually after clicking the “buy” button	Buy each photo individually after clicking the “buy” button	Add photos into a cart and pay upon checkout with credit card

One of the advantages of our product compared to what’s already out there on competitive products is that our search function will try to emulate Amazon’s search function where it will show a list of predicted words and also the category that we are trying to search for. Next, the way we plan to sort our photos is by giving each photo multiple keywords and tags to make them easily findable, then we are going to place each photo in a category that consists of the same types of photos. Registering will be as simple as possible. One way is to incorporate sign-ups with Google or Facebook to make it a one-click process as compared to sites like iStock and Dreamstime that require entering our emails. For the payment method, we are going to try and go down the GettyImages route by having a shopping cart that holds all photos that the user wants to purchase and have them check out everything in one go.

7- High-level system architecture.

Framework

- CakePHP: We are choosing to use CakePHP because it is open-source and easy to use. There are also a lot of resources to help us if we get stuck. CakePHP is also updated regularly so it should have a long lifespan. It uses the MVC architecture and is fast and flexible.

GUI technologies

- Bootstrap: This GUI technology helps to provide the user with an incredible user experience no matter what device he or she uses.
- Javascript: It is well supported with almost every internet browser. It is easy to learn and will prove useful.
- CSS: We will use css to style our web pages and make it visually pleasant for the user.
- Jquery: We will use this javascript library to simplify javascript code.

Supported Browsers

Chrome v59.0.3071 to 61.0,
Firefox v54.0-66.0a1
Safari v10.1

API's

Stormpath API: This API supports Facebook and google login for website registration.

8- Team

Manuel Duran - Chief Executive Officer
Stephen Josey - Chief Technology Officer
Ryan Jung - Backend developer
Youssef Hakkou - Backend developer
Jeremy Tan - Frontend developer
Yuezhou Yu - Frontend developer

9- Checklist

Team decided on basic means of communications
DONE. RECOMMEND TEAM GETTING THE SLACK APP
Team found a time slot to meet outside of the class
DONE
CTO chosen and working out well so far
DONE
Github master chosen
DONE
Team ready and able to use the chosen framework
ON TRACK
Skills of each team member defined and known to all
ON TRACK
Team lead ensured that all team members read the final M1 and agree/understand it before submission
DONE