



Business Requirements Document

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Document History

Date	Version	Changes
9/11/2021	0.1	Develop Outline of Doc
9/20/2021	0.2	Add Descriptions to Headings
9/28/2021	0.3	Fill in Requirements

Definitions (take out if not needed)

Term	Definition

References

Title	Description/Link

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Introduction

Purpose

The purpose of our website is to give users an immersive experience when looking for a hands-on activity to work on. Rather than recommending users projects that are arbitrary in practice and/or based on popularity, our website is geared towards personalizing the user interface through a simple questionnaire. Our customized algorithm will provide an intuitive environment where the user can develop, progress, and mature their current skill sets, or look to acquire new skills based on their personality.

Audience

The leading audience of this website would be beginner to professional hobbyists with tools at their disposal that seek to progress their physical crafting skills through personalized project recommendations. Age-wise, the target audience would be adults who are 18 and older to decrease liability issues within the website application.

Timeline

Describe the chronological order in which tasks for the project will be operated according to the scrum methodology (talk about each milestone in detail).

Project Summary

Project Scope

Will cover the scope of our website -> what the website will include

The website will be region locked to the United States of America and will be supporting American English only. The website will only support the latest Chrome version as of 05/20/22 and will not support beta versions. Our website is based on the tools a user has, so the website will display all measurements in metric units, but will also offer imperial conversions.

Personalization Formula

Go over how the website will find projects specifically for each user

Our personalization formula is based off of the mandatory questionnaire that every user must complete when creating an account. The user inputs the tools available to them and then they enter in their skills along with the skill sets that they are interested in. We gave the most weight to tools, with a weight of 2, while both the user interest and the skillset are given an equal weight value of 1. Skills will have levels based on what the user inputs so we can recommend them projects that are feasible. Skill interests will then have a secondary scaling of 1-3 based on how interest there is from the user.

Order of Filtering

1. Project recommendations will first filter out any required tools the user doesn't have.
2. It will then filter out the projects based on the skills and skill level the user has on that specific expertise.
3. Lastly, it will filter in projects that the user is interested in, but will be of low skill level if the user states that they do not have the skill set.

Out of Scope

Will cover what is out of our scope -> what website will not include

Our website will not:

- Have any monetization or product recommendations.
- Support Software/coding related projects or skill sets.
- Support languages other than American English.
- Support the ASCII-Extended table, only the original 127 characters.
- Support professional level projects that require licensing to complete.
- Have an email system to recommend projects or give notifications to our users.
- Be supporting direct messaging between users.

Website Requirements

Priority Key

Make a table where priority is from 1-5 and describes the extent of each priority. 1 will be very important, while 5 will be the least important.

Priority	Value	Description of Level
1	Must	This requirement must be done and is the foundation of the project.
2	High	This requirement is needed and holds a significant role in the project as a whole, but does not need to be strictly implemented as described.
3	Medium	This requirement is good to have or accentuates higher priority requirements.
4	Low	This requirement consists of side features that beautifies the project.
5	Expansion	These requirements are expansion points which can be implemented in the future after the software development life cycle (SDLC).

Functional Requirements

Will be the bulk of the document showcasing numerous functional requirements. Functional tends to refer to "I have to be able to do this"

Priority	Description	Rationale
<i>Priority Level</i>	<i>Description of Requirement</i>	<i>Why do we need this requirement?</i>
FEATURES		
Pooling Projects from WikiHow and Instructables		
1	Projects must be displayed with a title, thumbnail, and brief summary	Users need to be able to decide at a glance if the project they are looking at

		is worth clicking or not.
Skillset, Skill Level Categories, and Interest		
1	Have a predetermined list of skill sets for users to be defined by	Will have a key role in personalizing user's feeds with suggested projects based on their skill sets.
Customized Recommendations for Projects/Tools		
	Recommend simple tools (1-2)	This will allow the user to expand their own skill scope and venture towards larger projects
2	Recommend a limited amount of 5 projects to the user based on interest	To increase personalization factor of our website
3	Convert all tool sizes into metric units	Keeps a leveled system so that all projects follow the same guidelines and the display for users are not confusing
Uploading/Removing Projects from Personalized Profile		
1	Prevent users that are not signed in from being able to upload or remove projects	For error handling and to keep the security of other users' projects safe from any malicious users.
2	Restrict user from posting multiple projects at the same time	This prevents spamming from users and improves quality of projects posted because more time will need to be spent in order to upload a project
3	Users will have the capability of posting multiple media and text files from their device's storage	Improves customizability and doesn't restrict user into just typing
4	Users can save as draft before publishing	This way users do not have to worry about losing unfinished work because they can save the data without publishing to the website
2	Limit text content of project to 10,000	Does not disrupt the layout of the

	characters	website from too much text
Rating for Projects		
	Give user permission to rate other projects by filling in 1 of 5 stars to their satisfaction	This gives user feedback to other hobbyists who want to see how others feel about their project
	Display average of all ratings	Increases user feedback and gives an overall look at what the “public” thought about the posted project
	Restrict unregistered users from being able to rate projects	Gives unregistered accounts an incentive to make an account and prevents troll ratings
	Allow signed in users to update unlimited amount of times	Misclicks can easily be fixed and if user changes their mind they can come back and fix their review of the project
	Display viewers that rated project	Gives more feedback to project creator of how many stars people gave them and can average that based on the viewers of the project
Search and Discovery Page		
	This page will have the search field embedded	Discover page is where users can search for specific or general projects they are looking to get into
	Match searched text to project titles then fetch and display similar titles	Allows user to find multiple projects based on general searches
	Clickable photo thumbnails will be displayed	Thumbnails provide a quick view of what the project’s final product will turn out to be
	Thumbnails will expand to that project’s page when clicked	If a user is interested in what the thumbnail provides, they can get more information by clicking the picture
Comment Section		

Notifications		

Non-Functional Requirements

Non-functional tends to refer to "it has to run at least this fast."

Priority	Description	Rationale
<i>Priority Level</i>	<i>Description of Requirement</i>	<i>Why do we need this requirement?</i>
FEATURES		
Pooling Projects from WikiHow and Instructables		
Skillset, Skill Level Categories, and Interest		
Customized Recommendations for Projects/Tools		
Uploading/Removing Projects from Personalized Profile		
	Posts outside of our scope will not be recommended through search engine but will go through	We don't want to prevent users from posting their projects outside of our scope, but we also want to concentrate the amount of skill sets so that users have a better personalized feed
Rating for Projects		
Search and Discovery Page		
	Search is not case sensitive	We opted for general search results so

		that more projects will be shown and users can choose which one they'd like to look into
	Search results must be done in up to 5 seconds maximum	For people who do not have consistent internet speeds, we will try to optimize but 5 seconds should be a good baseline for the search results to appear
Comment Section		
Notifications		

Storage

Explain how user data will be stored and used throughout website

- Our website will store email addresses from our users for login functionality.
- Our website will also store user preferences from the questionnaire.
- Our website will also save project ratings and comments.

Features

Pooling projects from WikiHow and Instructables

- Our website will build a database of projects from these websites.
- Our website will also store user preferences from the questionnaire.
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Policies and Guidelines

System Requirements

Barebones of tech spec and what is required in order to run the website

Browser Compatibility

Explain which browser our website supports and will be liable for

- We will support the current version of Chrome **94.0.4606.61** and will target support for the latest Chrome version as of **05/20/22**.

Security

Explain what security protocols will be implemented for user data

We will be implementing an SSL certificate for HTTPS.

Using a proxy through Apache in order to region lock our website to the United States of America.

Passwords will have restrictions for special characters, numbers, and uppercase letters.

2FA for non functional

Error Handling

Look at different ways to handle errors such as inputting chinese characters into search bar

We will not stop users from inputting what they like into our search box, but it will try to find the closest match. If illegal characters are found, then we will not initiate the search at all. If a user tries to post a project with illegal characters, then it will not go through and will be saved as a draft instead with the reason displayed. If a user tries to upload an image larger than the 5MB limit, then it will be converted to jpg if it is not already one. If it is a jpg file and is over the size limit, then it will be rejected and inform the user. If a user doesn't select anything from the questionnaire then they will not be allowed to proceed to the next question until they select at least one item.

- Empty search box or illegal character
- Illegal characters will trigger error
- Oversize images will be convert to JPG, otherwise decline
- Empty or incorrect user name or pass upon logging in
 - Not proceed and inform user
- Empty project Title or body
 - Will not post, will inform user to type in the correct fields (at least 1 character)
- Empty comment or illegal characters in the comment
 - Will not post, will then inform the user
- If post body or title or comment is over the character limit
 - When the user tries to publish, they will be informed by how many characters they're over
- If our database goes down and the user is trying to post or search:
 - Display an error message with the “nyan cat” gif
 - Save option, if not saved, good luck
- If our website goes down
 - 404 error will be displayed

User Navigation

(insert site map)

Logging/Registration

How and what will be shown during registration

- A form with details asking the user to input their desired username and password twice.
- Passwords will have restrictions for special characters, numbers, and uppercase letters.

Login/Logout

Steps to login and logout, along with the functional/non functional requirements of doing so

From the homepage, users will be able to find the login button on the top right. It will redirect them to the login page where they can also create an account if they are a new user. They will enter their email address and password to login.

If the user is already logged in, then the top right will change to a “Logout” button instead and will prompt the user to confirm before fully logging them out.

- Security questions for password recovery

User Experience

Explain various experiences user will have

- Links in the search bar, will be treated as plaintext

Make sure to reference proposal

Priority	Description	Rationale
<i>Priority Level</i>	<i>Description of Requirement</i>	<i>Why do we need this requirement?</i>
<i>General Functional Requirements</i>		
1	Login/Registration	Our website is based on personalization, we cannot provide curated projects if they are not registered users.
1	User questionnaire at account registration.	Our website is based on the ability to produce curated projects to our users. If we do not know what their interests are and what tools they own, we cannot

		provide the basic functionality of our website.
1	Upload	Users need to have the ability to upload in order to publish their own projects. This is essential for us to be able to grow our user base.
2	Password Recovery	If our users cannot login, then they cannot fully utilize our website. People forget and it's important for them to be able to reclaim their account.
2	Project Page	Users should be able to post their own projects. It's vital for our website to be able to grow the user base and the best way to do that is if we have our community participate in sharing new projects.
2	User Profile	User profile will contain an avatar, user name, and a description that the user can edit
3	Comments	Users should be able to share feedback or offer constructive criticism on projects. This can begin many discussions where other users can learn to avoid mistakes when they attempt the same project.
3	Search text field	Our users should be able to search for any projects they like, regardless of what they answered for the questionnaire.
2	Search text should display similar search results to the user's input	Without this functionality, users will not be able to get anything out of the search bar since the input will not be fed into any data source
3	Discovery page	The discovery page allows for users to explore many projects that could possibly interest them. We have both curated and non-curated projects

		shown, this exposes users to the most amount of various content.
3	Notifications	Users should be able to know when someone comments on their post. This invites discussion and encourages our users to interact which could lead to growing the community.
3	About us page	This page is meant to show everyone who visits the website what our goal is. New users could join based on whether or not they like the idea of what we're trying to accomplish.

Priority	Description	Rationale
<i>Priority Level</i>	<i>Description of Requirement</i>	<i>Why do we need this requirement?</i>
<i>General Non-Functional Requirements</i>		
	Website should load under 5 seconds maximum when there are less than 1000 active users	To keep the website optimized so that slow internet users can have the same experience as other users