

Progress Report 1

COSC 4P02 – Software Engineering 2 (Winter 2024)

Professor- Naser Ezzati-Jivan

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Project Title: Social Media Post Generator

GitHub: <https://github.com/mc16dn/COSC-4P02-Group-Assignment/tree/main>

Project Members

Name	Role	ID	Brock Email	GitHub Username
Basel Abdel Hafez	Product Owner	6826853	ba19tw@brocku.ca	Hafezberg
Hevar Halabjaee	Scrum Master	6701248	hh18iq@brocku.ca	spiralwind
Rifat Chowdhury	Project Manager	6830301	rc19nv@brocku.ca	Rifat-Chowdhury
Raymond Dong	Developer 1	6592539	rd18sx@brocku.ca	raymonddong2
Matthew Cam	Developer 2	6195556	mc16dn@brocku.ca	mc16dn
Maisam Anjum	Developer 3	6804298	ma19an@brocku.ca	Koorikdat

Project Management Tools

Miro was used as a collaboration tool by our management and development teams during meetings to build user stories. With these user stories, we developed the product backlog items and two sprints. Jira is being used to manage our product and sprint backlogs because it integrates with GitHub. We'll utilize readme.so to keep the readme file updated. We have used the GNU General Public License v3.0 as the reference backbone for our license file. We are using Reddit sub-reddits to do research and find potential content for our project.

Contributions

Basel:

- Created User epic.
- Contributed to user stories.
- Collected the team's thoughts.
- Contributed to the Release Planning doc editing.

Rifat:

- Contributed to user stories,
- Formatting the Release Planning doc
- Managing Miro
- Updating readme file

- Assisting Basel with User Epic decisions.

Hevar:

- Made the final product and sprint backlog decisions.
- Communicated with Basel to ensure accuracy in the report.
- Contributed to the research material that needs to be looked on to ensure the success of the project.

Matthew, Raymond, and Maisam:

- Assisted Hevar with research.
- Assisted with making decisions regarding the program's implementation.
- Assisted in discussing the risk management of the project

Product & Sprint Backlogs

User Epic

We would like to request a social media post generation program. It must be able to pull a post from Reddit and upload different permutations of a video reading out these posts via text-to-speech, they must be autonomously uploaded after receiving the user's desired permutation. For accurate comparison, we would like multiple channels with an independent environment for experimentation, these channels will upload different permutations of the pulled Reddit post. We need the program to be maintainable in a cost-efficient manner for future updates. These permutations could include audio, a gameplay clip in the bottom half, or a clip from a popular show or the like. We need the program to output reliable and accurate results based on user metrics collected from the channels. The metrics collected must include watch time, total clicks, total views, and total shares. It must be resistant to data leaks of both the user's information and the collected metrics. A user interface must be present, and it must be able to accept the input of the chosen permutations, the interface must also be usable, reliable, and the program must be able to output its results to this interface in a concise and readable manner. Lastly, we require easy access to the videos posted and data pertaining to these videos.

User Stories

As a user I want to be able to pull the desired Reddit post so I can use them in the videos	As a user, I want to be able to use text-to-speech to read the post so I can use them in the videos.	As an admin, I want to be able to view the execution log of the program so I can monitor it.	As a user I want to be able to view the metrics generated so that proper edits can be made.
As a user, I want to be able to fetch the latest posts from Reddit based on specified keywords so I can edit the desired posts.	As a user, I want to be able to autonomously upload videos through the program so I can have a more efficient experience.	As a user, I want to be able to generate multiple permutations of videos pertaining to a single Reddit post so I can make accurate decisions.	As an admin, I want the ability to view and manage the program's database so that I can make accurate decisions.
As a user I want to be able to know what my exact error was if one was made so that I can make the proper changes	As a user, I want to be able to stitch a video clip of my choosing to the video as a form of permutation so I can experiment.	As a user, I want to be able to use an efficient and readable UI so that I can make accurate inputs.	As a user, I want to be able to view the program's output in a readable and concise manner so that I can make accurate decisions
As a user I should be able to view the final version of the video so I can ensure its quality.	As a user, I want my data and metrics to be secure and anonymous so I can work without worry.	As a user, I want to be able to choose which channel to upload the video to so that I can collect accurate data.	As a user I want to be able to make program maintenance requests with minimal cost so that I can keep the program within my interest
As a user, I want to be able ability to customize the appearance and format of the video as a form of permutation so I can experiment.			

Product Backlog

The product backlog is a dynamic and prioritized list of features, improvements, bug patches, and other tasks that must be completed in a product. It functions as a comprehensive and ongoing library of tasks that the development team may work on in future iterations or versions of a software product. The product backlog is a key artifact in agile approaches, notably Scrum.

✓ SMPG-6 producing 18 video templates	TO DO ▾	- 
✓ SMPG-7 grabbing data from posted video	TO DO ▾	- 
✓ SMPG-9 grab video metrics from a given channel (watch time , total clocks, total view and total shares)	TO DO ▾	- 
✓ SMPG-35 Test that the metrics given returned from the video are sound and accurate	TO DO ▾	- 
✓ SMPG-8 Producing a decision tree to decide which video did the best by some given metric	TO DO ▾	- 
✓ SMPG-12 produce a method for the bot to upload to multiple different social platforms	TO DO ▾	- 
✓ SMPG-26 combine the video with the test from reddit and the voice to produce content that can be uploaded	TO DO ▾	- 
✓ SMPG-27 produce a server so that the bot can run for testing purposes	TO DO ▾	- 
✓ SMPG-14 make a user interface	TO DO ▾	- 
✓ SMPG-22 allow the user to upload video files to the user interface and work with the bot	TO DO ▾	- 
✓ SMPG-23 allow user to change voice with GUI	TO DO ▾	- 
✓ SMPG-24 allow user to change where they grab the reddit score	TO DO ▾	- 
✓ SMPG-25 allow user to manage the bot for a individual platform that will effect the other platforms that the bot is connected with	TO DO ▾	- 
✓ SMPG-28 test that the created content is sufficient for the users needs	TO DO ▾	- 
✓ SMPG-29 test that it works with different OS's	TO DO ▾	- 
✓ SMPG-30 Test test decision tree	TO DO ▾	- 
✓ SMPG-31 create database for video and metrics	TO DO ▾	- 
✓ SMPG-32 show video on gui	TO DO ▾	- 
✓ SMPG-33 show metrics of the video beside the GUI	TO DO ▾	- 
✓ SMPG-34 ensure that security is sound and that there are no data leaks	TO DO ▾	- 

Implementation of the SE Process:

Iteratives: (Will be updated soon)

First Sprint Backlog

Within the first sprint we want to set up the foundation of the project. This means that we need to put together all the initial components such that assembling them together moves smoothly. The building blocks involve researching technologies to see what is most effective and incorporating them at a basic level. The reddit API is integral to our project, and it serves as the base input, so by prioritizing that, we can move forward ensuring our project is viable, and this is also required for all future steps as it wouldn't be possible to integrate a voice bot, or video development pipeline without this starting point.

▼ Produce reddit story grabber 26 Jan – 9 Feb (8 issues)			0 0 0	Start sprint	...
Allows the bot to grab stories from reddit					
<input checked="" type="checkbox"/>	SMPG-36 research how to grab and read stories from reddit	IN PROGRESS ▼	-	MA	
<input checked="" type="checkbox"/>	SMPG-1 register with reddit api	IN PROGRESS ▼	-	MA	
<input checked="" type="checkbox"/>	SMPG-2 use reddit api to pull from given url	IN PROGRESS ▼	-	MA	
<input checked="" type="checkbox"/>	SMPG-3 fetching from random 10 top posts from a given subreddit	TO DO ▼	-		
<input checked="" type="checkbox"/>	SMPG-5 sanitizing user posts for Censorship and security	TO DO ▼	-		
<input checked="" type="checkbox"/>	SMPG-4 make the post that is grabbed a manageable length and does not cut off any part of the story	TO DO ▼	-		
<input checked="" type="checkbox"/>	SMPG-11 research which subreddits are the best to grab stories from	TO DO ▼	-		
<input checked="" type="checkbox"/>	SMPG-37 allow the reddit grabber to grab stories from different reddit	TO DO ▼	-		

First Sprint Progress

Status ▾

⌵ ⌵ ⌵

Research useable voice modules

✓ SMPG-40

MC

Matthew Cam

allow the reddit grabber to grab stories from different redds

✓ SMPG-37

MC

research how to grab and read stories from reddit

✓ SMPG-36

MA

develop multiply different options for the voice (around 3)

✓ SMPG-20

MC

integrate the voice with the reddit grabber so that it can read the text

✓ SMPG-18

RD

make the voice of the bot read any text

✓ SMPG-15

MA

<

1-12 of 12

>

Status ▾

⌵ ⌵ ⌵

make the voice of the bot read any text

✓ SMPG-15

MA

research which subreddits are the best to grab stories from

✓ SMPG-11

MC

sanitizing user posts for Censorship and security

✓ SMPG-5

HH

make sure the post that is grabbed is a manageable length and does not cut off any part of the story

✓ SMPG-4

RD

fetching from random 10 top posts from a given subreddit

✓ SMPG-3

MC

use reddit api to pull from given

<

1-12 of 12

>

Second Sprint Backlog (Current Sprint)

voice of the reddit bot

Add dates7 issues

000Start sprint

<input checked="" type="checkbox"/> SMPG-15 make the voice of the bot read any text	TO DO	-	
<input checked="" type="checkbox"/> SMPG-16 make censorship for the voice so that it avoid inappropriate words	TO DO	-	
<input checked="" type="checkbox"/> SMPG-17 test the censorship and voice so that there is no errors involved	TO DO	-	
<input checked="" type="checkbox"/> SMPG-18 integrate the voice with the reddit grabber so that it can read the text	TO DO	-	
<input checked="" type="checkbox"/> SMPG-19 test the integration so that there is no errors because of the implementation	TO DO	-	
<input checked="" type="checkbox"/> SMPG-20 develop multiply different options for the voice (around 3)	TO DO	-	
<input checked="" type="checkbox"/> SMPG-21 allow easy switching between voices and test that it doesn't cause errors	TO DO	-	

Current Sprint Progress

Projects / Social Media Post Generator

voice of the reddit bot

5 days remaining

Complete sprint

RCMCMAHDRH

GROUP BYNone

Insights

View settings

TO DO 4

make censorship for the voice so that it avoid inappropriate words

☒ SMPG-16

HH

test the censorship and voice so that there is no errors involved

☒ SMPG-17

HH

test the integration so that there is no errors because of the implementation

☒ SMPG-19

RD

allow easy switching between voices and test that it doesn't cause errors

☒ SMPG-21

MA

IN PROGRESS

DONE 4

Research useable voice modules

☒ SMPG-48

MC

make the voice of the bot read any text

☒ SMPG-15

MA

develop multiply different options for the voice (around 3)

☒ SMPG-20

MC

integrate the voice with the reddit grabber so that it can read the text

☒ SMPG-18

RD

Backlog



RC
MA
HH
RD
MC

Epic ▾

Insights View settings

voice of the reddit bot 22 Feb – 6 Mar (8 issues)			0 0 0	Complete sprint	...
<input checked="" type="checkbox"/> SMPG-40 Research useable voice modules	DONE ▾	-	MC		
<input checked="" type="checkbox"/> SMPG-15 make the voice of the bot read any text	DONE ▾	-	MA		
<input checked="" type="checkbox"/> SMPG-20 develop multiply different options for the voice (around 3)	DONE ▾	-	MC		
<input checked="" type="checkbox"/> SMPG-10 integrate the voice with the reddit grabber so that it can read the text	DONE ▾	-	RD		
<input type="checkbox"/> <input checked="" type="checkbox"/> SMPG-16 make censorship for the voice so that it avoid inappropriate words	TO DO ▾	-	HH		...
<input checked="" type="checkbox"/> SMPG-17 test the censorship and voice so that there is no errors involved	TO DO ▾	-	HH		
<input checked="" type="checkbox"/> SMPG-19 test the integration so that there is no errors because of the implementation	TO DO ▾	-	RD		
<input checked="" type="checkbox"/> SMPG-21 allow easy switching between voices and test that it doesn't cause errors	TO DO ▾	-	MA		
+ Create issue					

Third Sprint Backlog

Create a and combine video Add dates (9 issues)			0 0 0	Start sprint	...
<input checked="" type="checkbox"/> SMPG-6 producing 18 video templates	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-41 allow user to upload file	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-43 create generic background for text and make it readable	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-39 create subtitles for reddit post on video automatically	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-26 combine the video with the text from reddit and the voice to produce content that can be uploaded	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-12 produce a method for the bot to upload to multiple different social platforms	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-35 Test that the metrics given returned from the video are sound and accurate	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-9 grab video metrics from a given channel (watch time , total clocks, total view and total shares)	TO DO ▾	-			
<input checked="" type="checkbox"/> SMPG-44 test that the given metrics are similar to the ones stated in the creator hub for the video	TO DO ▾	-			
+ Create issue					

Meeting Log:

Meeting 2 (Saturday January 20th):

Points Discussed:

1 - License.md: GPL or MIT.

- 2 - We decided to use Miro for recording our progress and scheduling our meetings. Rifat will make the board and invite us later.
- 3 - Sprint Planning: Biweekly for now, weekly later if necessary.
- 4- We made the decision to use Jira to record our sprints and tasks.
- 5- Product Owner and Project Manager will handle all of the reporting. We will reference our Jira often to stay updated on sprint progress.
- 6 - Talked about the rough idea of the project. Hevar mentioned an app that can pull from Reddit very easily and we can use that in the program.

Questions to ask the TA (Will be updated on Monday as well):

- 1 - How often do we need to report to you? Will it be after every sprint/meeting, or will it simply be at the assignment's pace? Do we need to record our meetings in detail?
- 2 - How will the program itself be graded? Will the complexity of it be accounted for? Will the amount of testing be graded? Etcetera.
- 3 - How detailed do the sprint reports need to be? How general can we be when it comes to the tasks we record on Jira?
- 4 - How should we handle pairing? Will it be better for 2 devs to work on the same thing for the duration of the sprint, or is it better to have each dev work on one aspect instead?
- 5 - What exactly is expected of the Product Owner and Project Manager? We already made the decision to handle all of the reporting, but what else can we do to even the workload?

Meeting 3: (Monday January 22):

Points Discussed:

We confirmed the license GPL v3.0 as our license format.

For the Ta's meeting we decided to create 4 user stories:

User Statistic analyst

User entrepreneurs

User develop

User youtuber

For the Ta's meeting : 15 mins project basic discussion & 5 mins Ta answering question.

Questions to ask the TA (added with the Saturday's meeting questions):

Is there any minimum push requirements for each individual for the project?

How'd you suggest approaching the 5% bonus marks for the assessment part(slide 17 in the course outline)?

Meeting 4: (Monday January 29th)

This meeting is going to be exclusively implementation based. Many aspects of the program will be discussed and cemented today.

1 - Maisum created multiple branches to maintain version control.

2 - Maisum did some research on Reddit's API and found out that simply adding .json at the end of the URL creates a file that contains all of the relevant post's information. This will be our method for pulling reddit posts.

3 - Matthew researched subreddits and it prompted us to discuss comment-dependent versus post-dependent content. This will have to be decided a little later but the issue has been discovered. We decided to leave this decision to later down the line.

4 - Matthew brought up censorship and how we should tackle it. Firstly, we need to define what censorship entails. So far, swear words, sensitive words, strong words (kill, murder, etc...) can be replaced with words like "unalive" etcetera.

5 - We discussed security in the program and what it entails, we decided it mainly means we need to make an effort to ensure that metrics and the like are not easily leaked or stolen.

6 - We discussed code pacing. And decided our current pace is fine for now. But there will likely be a crunch period which we will try to avoid.

7 - Basel brought up the point of measuring data obtained both from the program and through user metrics. It was decided that concessions will be made by the dev team to be able to measure this data.

8 - Basel brought up the issue of pulling metrics from our posts to serve in the decision tree. We agreed that it wouldn't pose a big challenge if we use websites like socialblade. Detail will have to wait for its relevant sprint but we have a good idea on how to go about doing it.

9 - Raymond brought up a question about what qualifies as a "manageable" post length. Hevar suggested measuring the text-to-speech's time through google and the decision should be made based on that. Raymond decided he would do this through measuring WPM (words-per-minute). But further detail will have to wait for the creation of the voice-over module. This will warrant extensive testing.

10 - We decided to research and see if Reddit has a system of collecting screenshots. This brought up a permutation possibility which is either having subtitles on the screen or a screenshot of the post itself. We can upload a different version of this to two channels and seeing which one generates more attention.

Meeting 5: (Monday February 5th):

This meeting is taking place just before the sprint ends. Not much was discussed but we ensured everything was going to plan.

1 - 6 out of the 8 sprints were marked as done

2 - Discussion was done regarding one of the sprint backlog - sanitizing user posts for Censorship and security.

3- We discussed when the TA meeting was taking place.

4- We planned the Sprint Retrospective Meeting and set plans for the next sprint's Sprint Planning Meeting.

Meeting 6: (Sunday Febuary 11th):

This meeting will serve as a Sprint Retrospective Meeting, we will tie up any loose ends and reflect on what we could have done better.

1- It's come to our attention that integrating the swear word database for censorship along with our reddit post grabber is proving more difficult than anticipated. This task will now be moved to the next sprint.

2- We cited a database we used for swear words and decided on a reliable way to cite our sources from now on.

3- What everyone learned from the first sprint proved to be too little compared to the detail that's expected of us. So Basel and Rifat will take measures to make some stuff up. As well as ask questions to the dev team to get some more context.

4- We decided to compile our work and what we learned. The Reddit API proved to be difficult to work with so we had to come up with a roundabout way of interfacing with Reddit. Also, unfortunately it is not possible to run the program through GitHub directly which made our work more difficult. We decided that a more reliable and readable way of formatting our code to allow the other developers to grab what they need from another member's commits into their own branch will prove helpful. An extended looping issue in our pulling algorithm was also discovered during one of our tests which will need to be addressed very soon before building on top of the foundation we made this sprint, as execution is taking much longer than desired.

Meeting 7: (Tuesday February 13):

This meeting will serve as the sprint planning session of the second sprint.

Agenda:

Old Sprint Review: - The team initiated the meeting by discussing the outcomes of the previous sprint. Any challenges or unfinished tasks were reviewed, and decisions were made on whether they should be included in the upcoming sprint.

API Integration: - The team engaged in a comprehensive discussion on the integration of multiple open-source solutions for the API. Various options were explored, and decisions were made to enhance the functionality and efficiency of the system.

Sprint 2 Kickoff: - Confirmation was given that Sprint 2 is scheduled to commence tomorrow. The team expressed readiness and commitment to achieving the sprint goals.

Potential Additional Sprints: - Considering the complexity of the data, there was a proposal for two more sprints, with the possibility of a third if required. The decision was not finalized, and further assessment will be made during the ongoing sprints.

User Backlogs for Sprint 3: - The team discussed and added user backlogs for Sprint 3, demonstrating a proactive approach to ensure a well-prepared backlog for future sprints.

Time Constraints Discussion: - Deliberations were held on time constraints, acknowledging the importance of managing time effectively to meet project milestones. The team committed to staying vigilant and proactive in addressing any potential challenges related to time.

Next TA meeting discussion - Discussion regarding the next meeting with the TA.

Assigning task's to the dev team - The Scrum master (Hevar) assigned individual tasks to the dev team (Maisam, Matt & Raymond). More roles might be added depending on the need.

Generating Video Templates - Produce 18 video templates for the coming sprint 3.

Possible Challenges of Sprint 3 - Discussion was made on the censorship of the voice.

Meeting 8: (Monday February 26th):

1 - Hevar made the decision to extend this sprint's duration by one week. Our current topic of discussion is analyzing how to increase our efficiency with completing these tasks by breaking down the current issues using Jira.

2- We had a discussion about tomorrow's TA meeting to get in the correct mindset. As a result of this discussion, we are going to take measures to compile everything we recorded so far to show the TA.

3- The developer team had a discussion about how to handle text-to-speech (voices, censorship, and timing)