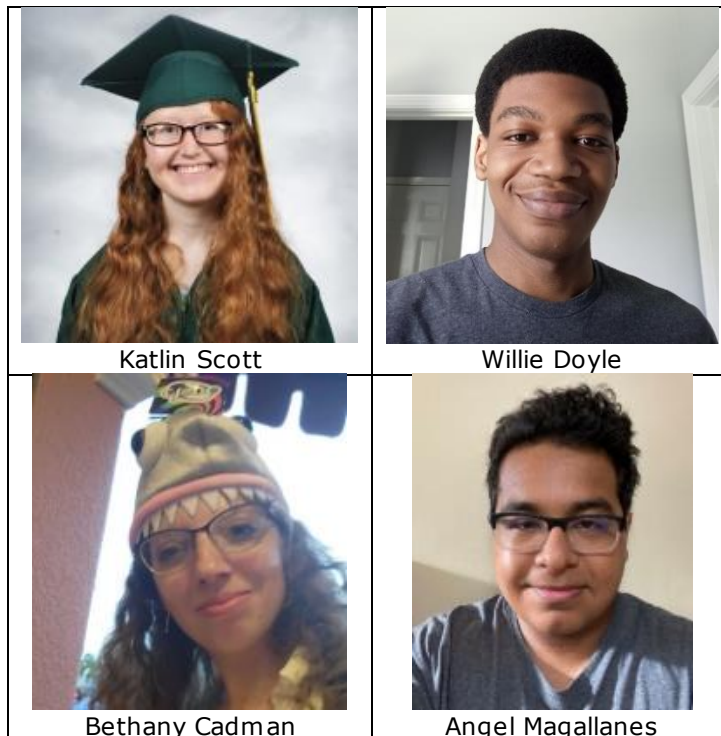# SP-22 - Dynamic Rhythm Game

Date: August 31, 2023

Project Team

Roles	Name	Major responsibilities	Contact (Cell Phone)
Team leader	Katlin Scott	Oversee time management; Facilitate team collaboration and research; Confirm documentation quality; Assist with development and others when needed.	███████████
Team members	Willie Doyle	Lead development; Manage team collaboration programs; Research market competitors.	███████████
	Bethany Cadman	Website design; Assistant developer; Research Music and AI; Assistance in other areas when needed.	███████████
	Angel Magallanes	Conduct testing on products; Document any issues encountered; Assist with tasks when needed.	███████████
Advisor / Instructor	Sharon Perry	Facilitate project progress; advise on project planning and management.	██████████████████

Katlin Scott

Willie Doyle

Bethany Cadman

Angel Magallanes

Project Overview
Have you ever listened to a song and wished you could play that particular song in a rhythm game? Or maybe even wanted more of your own songs in a rhythm game without having to wait for a new DLC pack to be released?

Well, our dynamic rhythm game will create procedurally generated 'rhythm game levels' (also known as 'maps') as songs are selected. We plan on achieving this by utilizing AI to detect various beats and inflections within the music. The music will be sourced from the largest music library in the world, Spotify, giving us access to over 100 million songs and near-endless possibilities.

Project website
We will be using a GitHub repository for our website.

https://dynamicrhythmteam.github.io/

Final Deliverables - Specific to Your Project
1. Website
2. GitHub Link
3. Final Report

Milestone Events (Prototypes, Draft Reports, Code Reviews, etc.)
#1 Complete Project Requirements - By September 10th

#2 Create Game Platform - By September 24th

#3 Prototype Game - By October 22nd

#4 Design Review and Rework - By November 19th

#5 Final Report - By December 3rd

Meeting Schedule Date/Time

For our meetings, we plan to briefly get together after class to discuss progress or anything that needs to be done. However, when we need additional meetings, we will meet either on Fridays or Saturdays on Discord. Specific times depend on everyone's availability and may differ each time.

Collaboration and Communication Plan

For meetings, we plan to meet on our Discord server. For collaboration with the project deliverables and technical documentation, we plan to use Google Docs and/or MS Word Online. For project implementation, we plan to use Unity.

Project Schedule and Task Planning

Project Name: SP-22: Dynamic Rhythm Game
Report Date: 9/2/2023

						Milestone #1				*Milestone #2*				*Milestone #3*				*C-Day*	
Phase One	Deliverable	Tasks	Complete%	Current Status Memo	Assigned To	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	11/19	11/26	12/03
	Requirements	Define requirements	25%	Working on Finishing Up	All	10	5												
		Review requirements with SP	0%		All	2	2												
	Project design	Base game platform	0%		Willie		5	15	15	5	4								
		API Spotify implementation	0%						5	10	7								
		User interaction design	0%							5	10	8							
		Develop AI to detect beats	0%						10	10	5	5							
		Develop working prototype	0%							5	10	10	3						
		Test prototype	0%									7	9	5					
	Development	Review prototype design	0%		All								8	5	10				
		Rework requirements	0%		All								8	10	10	5			
		Document updated design	0%		Katlin, Angel											5	10		
		Test product	0%												8	10	10		
	Final report	Website preparation	5%	Partially Started/Set Up	Bethany, Katlin														
		Presentation preparation	0%														5	10	10
		Poster preparation	0%															5	10
		Final report submission to D2L and project owner	0%		Katlin														5
Phase Two	Additional	Storage of (pre-)generated songs	0%																
		User editing	0%																
		Total work hours	**331**			12	12	15	30	35	36	30	28	20	28	20	25	15	25

* formally define how you will develop this project including source code management

Legend
- Planned (green)
- Delayed (pink)
- Number — Work: man hours

Version Control Plan

We have created a GitHub repository that everyone in the group has access to for the ability to collaborate on the project.

Link: https://github.com/DynamicRhythmTeam