Project Milestone 1

Team Number: 105-1
Team Name: Guayaki
Team Members: Matthew Lehmann, Tri Bui, Paco Ramirez, Jordane Coombs, Samuel Ehrlich

Application Name: Guayaki

Application Description: A 3-D, single-player, obstacle course game meant to be completed by the user. The user will have a 3rd person view of a ball (which represents the player model) and will be able to move the ball with the arrow keys on their PC. Each time the user attempts to run the entire course, their run-time to complete the course will be recorded and sent to a dedicated website that will hold global user-times for people to compete for who can run the map the quickest.

The obstacle map(s) will have multiple paths, speed boosts, jumps, etc that provide different users with a plethora of ways to complete the map quickly. The website that hosts the global leader board will allow users to create accounts and share their fastest, funniest, or worst runs through the course to create a fun online community.

Vision Statement: Guayaki will target the PC gamer community and provide a simple game with a low skill cap, that still inspires competition amongst its player base. Guayaki will also uniquely have its own social-media like website that allows players to see each other's best times (in a leaderboard) and share videos of their best attempts.

Version Control: These are all public repositories since the free version of github limits you to 3 collaborators. However, these are all accessible by the team.
https://github.com/matthew-lehmann/Guayaki_Team_Meetings
https://github.com/matthew-lehmann/Guayaki_Milestone_Submissions
https://github.com/matthew-lehmann/Guayaki_Coding_Repo

Development Method: The team will follow the agile/scrum based development methodology. This will include weekly scrums that are essentially the 2 hour long meetings required of us by the course. We will then focus on sprint planning to map out the subsystems of our planned application including game GUI, website design, server and database development, etc. All of this will essentially compose our backlog and the sprint planning will allow us to determine when we want our code sprints to take place, what we need to accomplish during these sprints, and how to handle achieving more or less than we set out to. Sprint reviews and retrospectives will ultimately take care of dealing with how much we accomplish in each meeting. The product owner, scrum master, and development team roles will be decided on accordingly. The product owner role will probably be shared between members of the group, a scrum master will be decided upon as the first sprint planning sessions start to take place, and the development team will of course be the 5 members of the group.

Communication Plan: The team plans to create a slack group to handle general communications with multiple channels that allow us to break the project into multiple subcomponents that can be discussed in parallel. The team will also use email to stay in touch/to plan meetings. While one of our team members, who may not be able to consistently make our meeting times, will use skype to be involved in our meetings. Github will then, of course, be used to handle modularizing the code responsibilities between team members.

Proposed Architecture Plan: The backend of the app should consist of a web server, a database for user information (including usernames and passwords), and a database to handle the global leaderboard that presents the quickest runs by different players. The front end will use the 3D Unity game engine platform to create the user interface. This GUI will consist of a screen to create an account and the actual 3-D game itself where the user passes through the obstacle course as a ball. Unity provides server communication capabilities that allow a developer to send and retrieve data from remote servers. The application will thus communicate with a server running on a remote device, and the server will be able to send the game data (but we don't see this being needed, we should only need a one way data link from the game to the server). Again, Unity's 3-D development platform will be the tool used for creating the front end, this includes the login screen and the actual game and gameplay itself. PHP or JavaScript will be utilized for website development. Since we have already seen JavaScript in the class, it will likely be the choice.

Meeting Plan:
Meeting time: In-person, Thursdays 3:00-5:00pm in Norlin Library. We may use Skype for one of our team members occasionally since he may not be able to make every meeting