



**Michigan
Technological
University**

College of Computing

Computer Science Department

CS3141 Team Software Project

Spring 2022

Team Software Project proposal

Section: R02

Team #: 11

Roll#	Student name	position
10	Ben Fosdick	Scrum master
9	Logan Eerdmans	Developer
11	Preston Foster	Developer
12	Kelby Gingerich	Developer
14	Ymailda Hernandez	Developer
16	Ketan Patil	Manager
8	Jack Hendrickson	Manager
10	Patrick Janssen	Manager

Project name/title: Project Knievel

Instructor name: Serein AL-Ratrout

➤ Project introduction and description:

Project Knievel is a mobile application that generates a trick or series of trick for Scooter riders. It will have a collection of tricks that the user can edit to add tricks that are not already in the collection, remove tricks, and edit the name and/or description of the tricks. This application can be used by riders at parks or in street locations to generate a trick in order to help the rider improve their skillset and learn tricks that are out of their current trick vocabulary.

➤ Problem statement

Riders often have a difficult time coming up with tricks to learn. This primarily occurs when they do not have people to ride with who are better than them or know different tricks. Other times, riders get stuck in a rut of only doing a few tricks that they already know and do not learn new tricks in part because they don't know what to try.

Alternatively, when riding in groups that have significantly different skill levels, it can be difficult to enjoy games like "S.C.O.O.T." because the person(s) that are better, choose tricks that are well out of the less experienced player's skill level.

➤ Proposed solution:

There are two main focuses to this application. First, there is education. This can be used individually or when riding with a group. Its primary focus is to help riders increase their trick vocabulary by eliminating some of the hurdles riders often experience. It does this first, by providing a collection of tricks that can be performed. This collection can both be used to learn new tricks, by providing instructions on how to perform the trick, and it is also used to get riders to try tricks they have not tried or did not know about. The second focus of the application is to provide an alternative to existing games within the riding

industry that helps create a more enjoyable environment when riding in groups with a range of skill level. Rather than more experienced riders choosing the next trick everyone has to do, the app will generate one for the whole group, giving those less experienced a chance to compete at their level. This app can thus help level the playing field by deciding the trick for the whole group, increasing the likely hood that less experienced riders can perform the trick.

➤ Tools:

We will use Git and Github for version control and collaboration. Apart from that, we are not entirely sure what approach we will take to make the application, so we are not sure what tools will be necessary.

➤ Constraints and challenges:

As our group connected for our first meeting, it became clear that there is a pretty significant lack of technical skills and experience. This seems to be the biggest hurdle for our team to overcome. With that lack of experience a lot of time will have to go into research, and time is always a challenge when balancing everything for school.

➤ The expertise of the Team Members

Each of our team members are in their third year here at MTU and have taken many courses in Software development. However, none of us have had any internships or industry experience. One member has done some web development for a semester with the HIDE enterprise. Others have done various personal projects. However, none of which directly apply to the tools or languages we intend to use at this point in our design, so our plans may have to change in part due to that. Web and app development

are used quite frequently in the industry, so gaining some experience in this area seems to be valuable to us all. Everyone is at the very least on board with our project proposal.

➤ References

- [1] Andrew Ward, "How to Create a Progressive Web App (PWA Guide For Customers)," [Online]. Available: <https://www.scorchsoft.com/blog/how-to-create-progressive-web-app/>. 9/20/22
- [2] Colton Sitts, "Progressive Web Apps." [Online]. Available: https://docs.google.com/presentation/d/1x4wn73Vq_tDoUzpo7kl7c4EyEErHvznGZGehIC9sEmw/edit#slide=id.g115eddb02cb_0_397. 9/20/22