

# Double Down TFT

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## Overview

Teamfight tactics is a free for all strategy game based off of league of legends. In a special game mode “Double Up” 4 teams of two compete to gain resources and fight battles. Losing a battle will decrease your health and the last team standing wins. This is a highly competitive strategy game, so players research builds, and study gameplay to improve their skill regularly. The player base is decently sized but most games played come from a smaller pool of highly active users. These active users are looking for an edge up on their competition.

Many applications have been made to support the main game Teamfight Tactics, but nothing has been specifically made to help players play “Double Up”. Because this is a high strategy game there is a demand for players to gain insights from both their previous matches and high level players.

This gamemode has an added level of complexity, a teammate. As your strategy and playstyle shifts, so will your teammates. Double Down is a way to see statistics, game data, and strategy information based on both you and your partner’s specific synergy.

## Scope

### Initial Proposal:

An application that will support Double Up players in researching, analyzing, and improving their strategy and gameplay. In depth information on all the following: Health, Traits, Items, Combinations, Synergies, Damage Types, Damage output, Time Spent, Common Routes, Economy Spending.

### Revised Project Goal:

A proof of concept for aggregating Double Up game data based on teammate pairs. Using an api key and a summoner name, receive some information on your best pairs, and the data from all your games played with those pairs. This application should run on windows, connect to the Riot API, store files locally, and interact with the user.

The purpose of this project is not only to build a useful tool, but to determine if this can be used as a product in the future. The final results of this process will let me determine if this is an endeavor I want to pursue as a career.

## Time

This project was created over the course of Winter, Spring, and Summer quarters in 2024 at CalPoly. I initially wanted to finish the project by the end of Spring but I feared I bit off more than I can chew doing this project solo. During a check in with my advisor about halfway through Spring quarter, I decided to extend the deadline to finish the file download capability and create ample documentation. Overall I think the revised scope is still too much work for this time constraint but I persevered.

## Resources

Riot Games has a database API with every player, gamemode, match, character, and item in Teamfight Tactics. There are two levels of access:

Personal - Limited API calls but enough to analyze information for one player at a time. Perfect for proof of concept and thick client architecture.

Production - Nearly unlimited API calls with greater permissions. Need a registered product and company to access.

After some time looking at the policies, it was clear that I would not be able to gain access to the production level key. Furthermore, my project scope is much smaller as a proof of concept, the personal key will work fine.

## Feedback

I had 5 users test the project ranging from the top 0.03% skill level, to the casual player. The biggest critique I had was that the UI was not very pleasing. Because this is a proof of concept, I decided to ignore this comment and focus on the rest. The other common complaints were that it needed to move faster and that it was hard to tell if there was an error.

From these critiques, I focused on making the inside process more transparent and fast. To start, my code is much more efficient now, it takes far less time to process a request. I also added an error message and dialogue for an invalid API key. Finally I added a save file dialogue to secure the final JSON in the end a little easier.

## Final Deliverables

Program Files - 6 python scripts, 1 executable

Final Project Demo - 1 video

Supplemental Documents - README (User Guide), Documentation, Overview

## Future Work

I do not intend to work on this project in the future. Although I had a lot of fun making it, me and most of my friends have stopped playing it in favor of other games. I do not have the time to be invested in a highly competitive game or another coding project

## Conclusion

Overall, this project was a massive success. I achieved one main goal that has stayed the same through the changes in scope. That goal is to have a proof of concept for accessing Double Up game data using python. This of course was one of my first victories, but there was much more capability to add before the program was ready. After clearly exceeding the expectations of the revised scope, I feel good about my effort towards my goals.

Now to answer the initial question, is this product worth developing? Altogether, I think it is not worth it to continue developing this project. To continue farther than I have, I would have to start a company, register a product, register a domain, host a server, and hire at least one more skilled engineer to develop a web application with me. This is far too expensive for me to pursue and with very little insight into the profitability of this kind of website, the venture is not worthwhile.

Thank you for viewing my project and being a part of my journey, please email me if you have any further inquiries [ejpomero@calpoly.edu](mailto:ejpomero@calpoly.edu)