

# **Proposal**

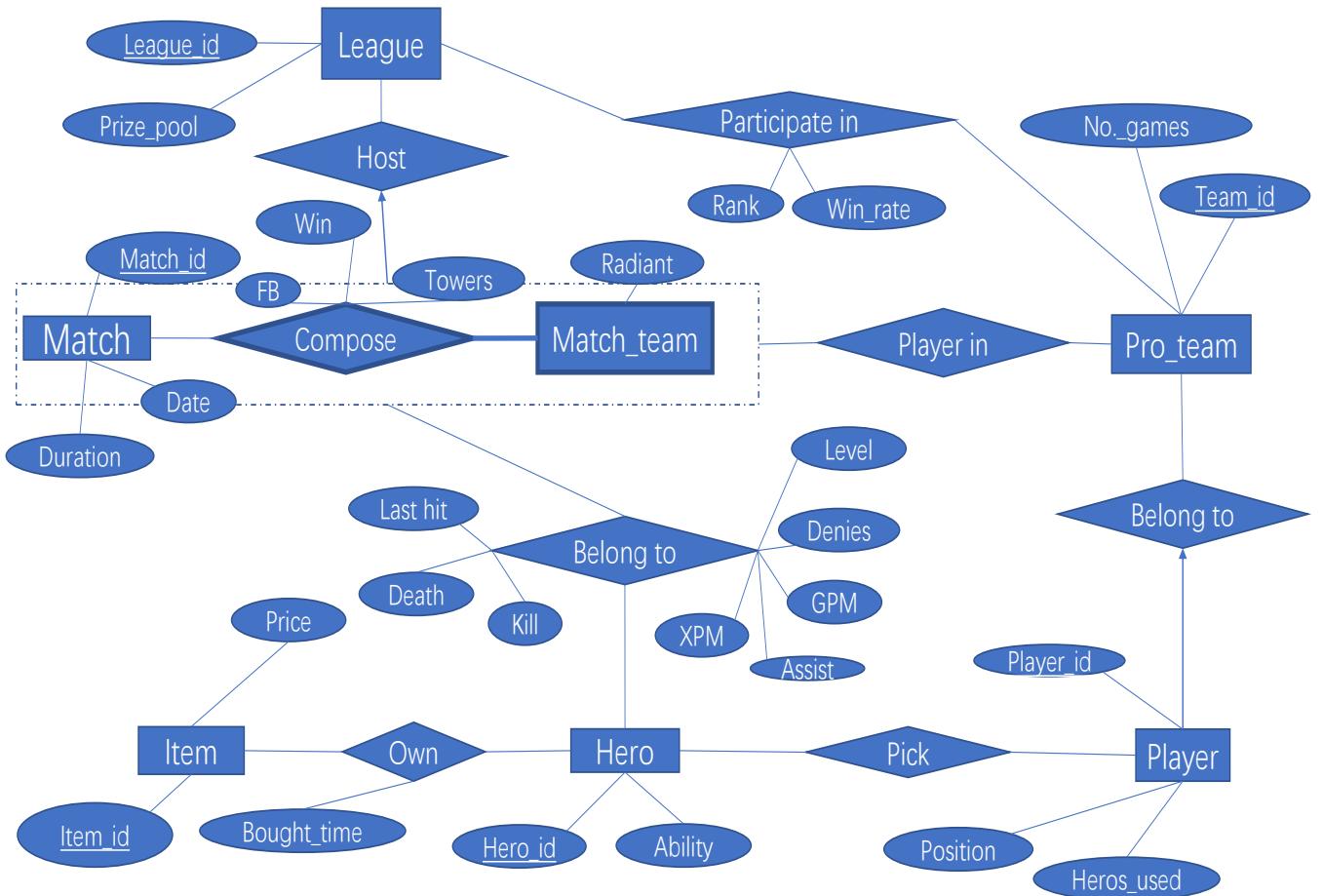
Name: Han Xu(hx2224), Yu Wang(yw3025)

Dota2TiGo! is a web/front-end application that provides professional statistics to The International (TI) tournament of dota2 (Defense of the Ancient II). Dota2 is multiplayer online battle arena(MOBA) game, and the International (TI) is the most prestigious Dota2 tournament that is held every year. To provide dota2 fans and professionals with statistics of each tournament, the application make uses of annual TI match data from the dota2 platform and gives the most desirable information. Basically, the user can query the information about different TI leagues, matches, teams, players, heroes and items. For example, the user can get a list of matches in the league and see the teams and players competing in the match. Additionally, the application will give interesting statistic summaries such as the winning rate of each team, the most common heroes used in the tournament and the MVP of game. Furthermore, there will be some challenging inferences such as the best hero's and player's combination that lead to win in the next year's tournament based on the statistics. In this way, dota2TiGo! can help every user to learn the game, evaluate the game and better enjoy the game!

## **Contingency plan**

In the extreme cases, the project will only focus on the detailed match and team's information and statistics summary in every annual tournament. We will drop the information and statistics summary about the players, heroes and items by just replacing them with an id. Also, there will be no inferences based on the data.

# E/R Diagram



# Schema

Entity
<ul style="list-style-type: none"> <li>League (<u>lid</u>, prize pool)</li> <li>Pro_team (<u>tid</u>, No_games)</li> <li>Player (<u>pid</u>, position, hero_used)</li> <li>Match (<u>mid</u>, duration, date)</li> <li>Match_team_compose (<u>radiant</u>, <u>match_id</u>, win, fb, Tower, FK(<u>match_id</u>) → Match)</li> <li>Hero (<u>hid</u>, ability)</li> <li>Item (<u>iid</u>, price)</li> </ul>

### Relation

- Participate\_in (lid, tid, rank, win\_rate)
- Belong\_to (mid, hid)
- Pick (pid, hid)
- Host (lid, mid)
- Own (hid, iid, buy\_time)
- Belong\_To (hid, mid, last\_hit, death, kill, assist, level, deny, GPM, XPM)
- Played\_in (tid, mid)

Approved by J.L

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Entity	Relation
League ( <u>lid</u> , prize pool)	Host ( <u>lid</u> , <u>mid</u> )
Pro_team ( <u>tid</u> , No._games)	Participate_in( <u>lid</u> , <u>tid</u> , rank, win_rate)
Player ( <u>pid</u> , position, hero_used)	Belong_to( <u>mid</u> , <u>hid</u> )
Match ( <u>mid</u> , duration, date)	Pick ( <u>pid</u> , <u>hid</u> )
Match_team ( <u>radiant</u> )	Own ( <u>hid</u> , <u>iid</u> , buy_time)
Hero ( <u>hid</u> , ability)	Compose ( <u>mid</u> , <u>radiant</u> , fb, towers, win)
Item ( <u>iid</u> , price)	Belong_To ( <u>hid</u> , <u>mid</u> , last_hit, death, kill, assist, level, deny, GPM, XPM)
	Played_in ( <u>tid</u> , <u>mid</u> )