

Social media application

-Gladiator arena-

- **Main Idea:** at a certain moment(we will see when), a tournament starts where employees will fight through an eliminator system(bracket). Each of them will have at their disposal different kinds of “advantages” so that they can beat their opponent and advance to the next round. The winner will get to be promoted as a manager.

- **Requirements:**

->A moment when the tournament starts must be chosen by the managers. There will be a “poll” where any manager can express the fact they want a tournament to start. When the threshold of 50%+ of the total number of managers is met, then a tournament will be able to be started.

->The application will store some “arenas” that have properties such as viewers capacity, how many employee-gladiators can fight; after the tournament will be voted to start, an arena will be chosen based on the following factor: the higher the time passed since the last tournament, the greater its capacity and number of gladiators it will have (this works on the assumption that the impact of a tournament is greater after a longer period of time due to enthusiasm gained by both managers and employees; the latest have more time to prepare too)

->Before the tournament, each employee has the possibility to grow its chances of success; at the beginning each employee has a fixed amount of money which they can use in their advantage or save up the money in order to buy more powerful advantages

That can be done in several ways showcased below:

1.Bribe a manager: the employee has the option to bribe a manager by giving him money. Depending on how large the total bribe is, a manager will provide the bribe-giver with one of these advantages : taking away a weapon from the opponent, drug him/her before the contest (to decrease its power), [or even eliminate the opponent totally].

-Only managers know exactly how much money and from who they got, employees are restricted from this information.

-Employees have limited access to these advantages (example: only one elimination through the tournament, max. 5 weapons taken away)

(*increase prices +)

Example:

Player1: 1000 euro bribe		Player1: chooses to drug his opponent
Player2: 1500 euro bribe		Player2: chooses to eliminate his opponent
Outcome: Player2 wins due to elimination of Player1		

2.Buy weapons: an employee can buy weapons: knives, cudgel etc. and use those in a fight. The weapons will have different power levels and one weapon can counter another. If a manager decides, a user can be striped of some/all of their weapons.

3.Enhance their power levels using drugs or other techniques(? continued); power is also increased by experience which is gained by the nr. Of tournaments the employee has attended.

->Each user will have the possibility to perform 3 attacks : light, medium and heavy. Light attack has 80% chance to hit, medium has 50% and heavy has 30%.

->A live chat of each game will be shown, and each "event" that happens will be shown to the watchers. Example "employee1 threw a rock at employee2", "employee1 won the battle against employee2". The match will send a message to the chat automatically when some event happens.

->Betting is also a thing between managers, employees and users. This works just as expected, a certain amount of money can be put on a player, and if she/he wins, all the money will be distributed between the betters who chose it.

->Each employee will have a betting odd before a match, depending on their power. As the match progresses and events happen(fighter1 medium hit on fighter2) the betting odd will constantly get updated with the help of an Observer(pattern). In this manner, the better will be able to be aware if they have chances to win the bet, and risk going forward or withdrawing.

->Each game of the tournament is evaluated in regard to the power comparison of the 2 players; this power was described earlier.

->Integration with Social Features: enable seamless integration with existing social features from the application developed such as sharing tournament on users' timelines. The users will be able to "spectate" the tournament, see live events and how the employees progress.

(not sure)-> Integrate statistics: the most popular weapon, the most efficient weapon(meaning it has the highest winrate), the employee with the highest winrate, who was the most successful/unsuccessful better. These statistics can be showed with respect to a tournament or all the tournaments that have been played.

->Authentication will be used for all employees/managers/spectators in a tournament. Different types of validation should be performed here(including the module with SQL injection) and also check if a player is logged in twice, valid birthdate, password has at least 8 characters etc.

->When an event happens in a match, the accounts and their bets will be instantly notified, since it might influence their decisions on keeping or retrieving their bets

->The above task will be achieved using the Observer pattern; between each employee attack there will be a delay of about 10 seconds in order to permit the user to withdraw his/her money if they want to.

-> Chants can be boost one players health or power or decrease it depending if it is positive or negative. If an employee gets at least 5 chants with his/her name, the boost applies.

->Managers will apply their power on the employees BEFORE the match starts.

->One authentication will take place for all account; normal users, managers, employees; managers and employees will be distinguished using a bit field

->An employee will be able to steal another's employee money with the help using the functionalities of the other group, so he/she can have more money to spend on gaining advantages.

->Also drugs will be used from another group; they can either enhance the power of an employee or decrease it depending on the drug and its effects.