

Functional Requirements -European League Football Gaming App

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The VTI Lecturers Associates has solicited the services of the VTI Software Engineering Group 2023 to design and deploy a Football gaming application modelled after the major European football leagues. In the first iteration of the application we will be modelling the English Premier League (EPL).

It is important for our entity to ensure that the functional requirements of the application are aligned to the client's business needs and strategy, and as such capturing the right requirements is key to the successful delivery of the gaming app.

The strategy employed for the development of the application must reflect the business guidelines thereby improving the processes for the core functionality of the gaming application.

Based on our past experience in deploying gaming applications we are confident that the deployment of this new application will be financially viable for our client and they will be able to realise a return on investment in a relatively short period of time.

| SECTION | SUB- SECTION/MODULE | FUNCTIONAL SPECIFICATION | REMARKS | Priority (L/M/H) |
|---------------|---|--|--|---------------------|
| | User Account Administration | Facilitate creation of account for each gamer - should only allow one account per individual | Gamers can not participate unless an account is created | Н |
| | Password administration | Facilitate Password Complexity set up/check | eg. Password must be at least 8 characters in length, including a combination of letters, numbers and special characters | Н |
| | | Ability to facilitate multi- factor authentication | | Н |
| | User Access | ess Facilitate Password change Expiry months | Password change every 6 months | |
| Gamer Account | Facilitate password recovery/reset - Forgotten password file Form/Appearance Allow gamers to add a display pic/emoji/etc Anonymous Identity Facilitate anonymity of gamers Anonymous Identity Facilitate anonymity of gamers To relikel collubety | account once more than x number of failed password entry has been | | |
| Setup | | Temporary password sent to email account on file | | |
| | | | | L |
| | | To reduce the likelihood of collusion between gamers - Need further clarification | М | |
| | Access Restriction | Allow for access to be restricted based on age of gamer | No limitation for initial roll out - when betting features are integrated then the application should only be available to players over 18 or age limitation within their jurisdiction | Н |

| | Audit trail | Ability to record the date and time changes are made to gamer's profile/records | | Н |
|---------------------|------------------------------------|---|--|---|
| | League Selection | Allow gamer to select which League he/she wants to participate in | System will be modelled after the top leagues in Europe - EPL, La Liga, Ligue1, Serie A, Bundesliga etc. Once the first iteration (EPL) has been fully deployed and critical bugs are identified and resolved then other leagues will be added | H - We will be starting with the default EPL |
| Tournament Setup | Football Club Selection | Gamer may have the option of selecting a team of their choice once that team is not already selected by another gamer | First Come first serve basis | М |
| | Number of Teams | Allow for 20 teams per league | | Н |
| | League Duration | Should be modelled after the EPL season, however, duration will be simulated over 2 weeks? | No. of matches per dav should be confirmed | Н |
| | Promotion/relegation | Allow for the teams finishing in the last 3 positions (18-20) to be relegated and the top three from the lower division to be promoted | | М |
| | Champions League Qualification? | Top 4 teams advance to UCL | Mavbe added in future upgrade? | L |
| Team Set - Up | Player Selection | Facilitates the assignment of players that are currently available in the actual team roster - 18 member teams (11 starting and 7 subs) | Gamers can only select players a team's roster once he has been assigned to a football club | Н |
| | Suspension of Players | Allow suspension of player on accumulation of red or yellow cards | Rules Based eg.Direct red card - 2 games ban, etc | Н |

| | | Formations | Ability for gamers to select a formation (eg, 4-4-2) and assign player to each position | I he GK position is only role that should be automatically designated | М |
|----|---------------|-------------------------|---|--|---|
| | | Match Duration | Facilitate the game time to be simulated for 90 minutes, however the actual allotted time will be 5 mins - in the initial deployment | Administrator may need the ability to change the allotted length of time per match - No Extra time or penalty shootout are allowed | I |
| | | Fixtures | Only allow team to play against each other as per planned fixture | There will be 380 matches, each team will play each other twice on a homeand-away basis | Ħ |
| | | Kick-off | Ability to simulate a coin toss, winner select which goal to attack - in the second half the direction in which teams were attacking in 1st half should be reversed | All players should be in their respective half of the field before kick off (start of the half or after goal has been scored | I |
| Ma | atch Scenario | Abandonment of Match | Rules base - if a gamer failed to show for a match. He would have forfeited points and match awarded to the other gamer? | Further clarification needed - what would be the number of goals awarded by default. | М |
| | | Team Jersey | Facilitate the usage of the current team jerseys or use the classic versions | Gamers should be allowed to select from a wide variety of jersey - Home team wears the White version of their kit and and away team wear "dark" version of their kit | L |
| | | Rescheduling of matches | Ability to reschedule/replay matches due system downtime | | Н |
| | | Substitution of Players | Facilitates substitution (within the FIFA club rules) | Within the simulated game this should done within scheduled | М |

| | | | time-out etc) | |
|---------------------------------------|-----------------------------------|--|--|---|
| | Trial Matches | Gamers are allowed to play 5 rial matches against the computer | | L |
| Reports & Queries- Points/Stats | Points Table/Standing | Facilitate reporting of point standing - Realtime | Matches Played, Points gained, GF, GA, GD, No. of remaining games, etc | Н |
| | Team Stats | Facilitate recording of goals for (GF) goals against (GA) | Goal difference (GD) will be computed based on GF - GA | н |
| | Player Stats | Ability to record and report stats for goal scored, assists, goal saved (GK or other player), Missed chances, own goals, etc for each player | Goes towards player of tournament award | М |
| | Live/Historical scorecard | Ability to display live match results and points standing | show score for current and completed matches within a given day? | М |
| | Exceptional Reports | Abandon/forfeited matches, and other anomalies (matches terminated or incomplete due connectivity or service outage) | | Н |
| General | Marketing - PR & Advertisement | Facilitate advertising | Future source of income generation | М |
| | E-Commerce - Merchandising | Allow for commercial activities - selling of branded goods etc | | М |