Faculty of Engineering and Computer Sciences

Computer Engineering

Final Report

For

MevzuBahis-Social Challenging

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MevzuBahis - Social Betting

Description

MevzuBahis is a social betting application that lets you bet on popular sports events or other popular events with your friends. Via this application users can create groups and join bets, later they can check who, who wins and who pays up.

Purpose of the Project

The handshake, one man's word to another, for thousands of years it's been the foundation of bet, from now one handshake will be replaced by social betting applications, this way it will be easy to keep track of bets and challenges and it will be hard to give up on any bet.

Mevzubahis is not a gambling application, it doesn't use real money, it uses virtual money called "coin". There are people who lost their money to real life sport bets just because they like the idea of betting.

What makes social betting different from real life betting is;

- You play against your friends not a machine.
- There are no betting rates. For instance, in real life betting, you put any amount of money (5) to a bet and if you win according to the given rate (1.10), so you win ((5*1.10)-(5)), in Mevzubahis winners share the same amount in the betting pool accordingly.

Intended User

Betting is mostly popular among high school and college students. However, every user can be the intended user since this application doesn't use real money that means no age restrictions and contains popular events that attract almost everyone.

Features

- Users can pick any custom or sport events that are listed by administrators from the menu and pick their friends who they want to bet.
- Creator of the group can decide the coin amount and send the bet offer to his/her friends.
- Everyone in the group gets a notification about the bet and if they accept they have to put the same amount of coin.
- After the bets deadline, coins shared among the winners accordingly.

Description of the Problem

- Betting systems usually programmed with the rigged algorithms that make people think they are winning but it slowly takes their money.
- The problem of almost every common betting system is focusing only some sort of sport events, mostly football. Casual events like President Elections never considered as a betting material.
- The joy of winning against the machine is not as vibrant as winning against friends.

Scenarios in which Problems May Occur

- The idea of betting with a virtual money: Some people are tend to bet to win money rather than fun. Although they lose more money than they win, virtual coins can make them unsatisfied, to fix this we put a reward system to our application so users can get free gifts/rewards with their coins.
- The biggest betting company in Turkey mainly focuses on Football events because it's the most popular sport in Turkey and it has a huge market size. However, we shouldn't forget that there is another reason for this; There are a lot of possibilities in football such as win, lose, draw, home team wins the first half, away team can't score etc. all of these situations lead people to bet more. In order to get attention to other sport events, we have a solution (see section: "Deciding on Bets").
- The money earned from bets which occurs between friends is more satisfying than the money that earned from the machine based betting systems. Although this may not sounds like a problem, it can lead some conflicts among friends, to solve misconceptions only administrators can decide who won or who lost the bet. (That is easy since our betting event's results are officially announced).

Proposed Solution to the Problem

- What our system offering is betting against non-machine system, which allows users to bet without any concern for getting tricked by machine and also lets users to compete with each of their friends.
- With our system users can bet sport events as well as anything including custom social events not just sport events.
- Our system also offers people to get more socialize and also create a new opportunities to compete with their friends.

Quality Function Deployment of “MevzuBahis”

Quality function deployment is a technique that translates the needs of the user into a technical requirements for software. It concentrates on maximizing the user’s satisfaction from the software engineering development process. With respect to our project the following requirements are identified such as;

Normal Requirements

Normal requirements consists of objects and goals that are stated by the developers Normal requirements of our project are

1. User friendly efficient system.
2. Minimum maintenance cost
3. Availability of expected requirements within the mobile configuration.
4. Easy to operate
5. The software with a measured coding and thinking.

Expected Requirements

These requirements are implicit to the system and may be so fundamental that the relevant people does not explicitly state them. Their absence will be cause for dissatisfaction.

Exciting Requirements

The requirements are for features that go beyond the user’s expectations and prove to be very satisfying when present;

1. Maximum high regulation with minimum hardware.
2. Easy to update
3. We may provide a tag achievement feature for extra satisfaction.

User Story of “MevzuBahis”

“MevzuBahis” is a social betting system which can be used via any android phones. After running the game UX view of the game will appear on the screen. The term UX means User Experience which is used to explain all aspects of a person’s experience with the system However, then user can select create a new group from the main menu to create new group or send bet to already created groups. User can also make system changes like sound configurations, notifications settings and user can also go to help section in order to learn how game works. The story behind this program is to allow users to compete with each other by betting. The objective is to try to beat your friends by winning the bets leveling up and earning coin to do more bets.

Non-Functional Requirements

-The application should be available at Google Play Store.

-Response time of the application should not exceed 20 seconds.

-Application should be running %99 of the time.

-User interface of the application should be in English.

-The learnability time of the user interface should not exceed 30 minutes.

-The application should send notifications.

-The application should use an active internet connection.

Functional Requirements

-User shall download the application from Google Play Store in order to use it.

-User shall have an active internet connection in order to use the application.

-User shall create an acoount or use his/her Facebook account to login.

-User shall create Betting Groups with more than two people.

-User shall select a bet from Custom Events category or from Popular Sport Events category.

-User shall choose a group or a person to send a bet request after selecting his/her bet from categories.

-User should create group while he/she is selecting a bet.

-User shall put an amount of coin to bet which he/she desires in order to start a bet.

-User shall see if another user has accepted his/her bet .

-User shall see the users who rejected the bet.

-User shall see the total amount of coin which is placed on a bet.

-User shall get a notification about a bet which is offered to her/him.

-User shall get information about his/her coin amount, number of total friends, number of bets lost and won, his/her level and his/her title at the Profile Page.

-User shall change his/her settings from Profile Page.

-User should be able to fill the survey which is about users interests and favorite sport teams.

-User shall get an amount of coin after he/she creates an account.

-User shall get an amount of coin every week.

-User shall watch advertisements in order to increase his/her coin amount.

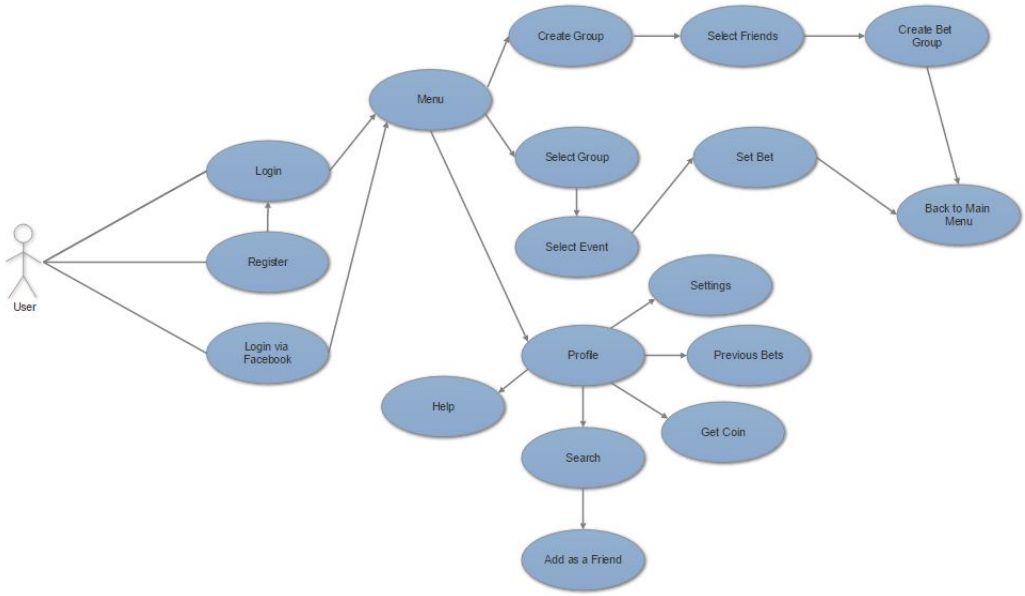
-System shall notify the user when new bets added to the system.

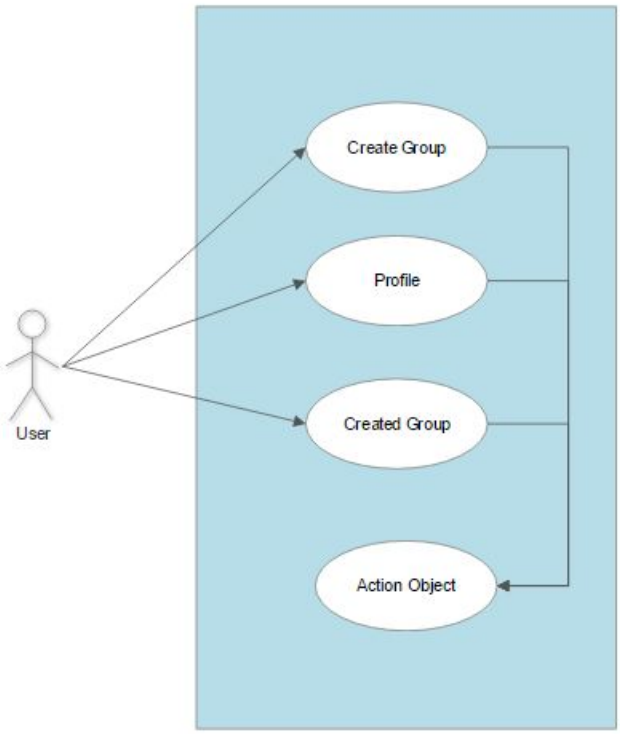
-System shall notify the user when he/she won or lost a bet.

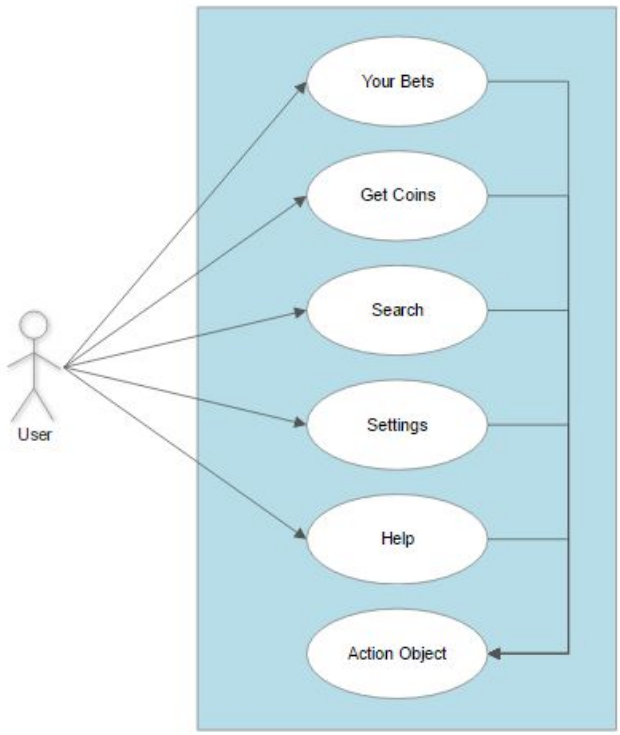
-System shall award a user with different Titles when he/she achieves some predefined goals.

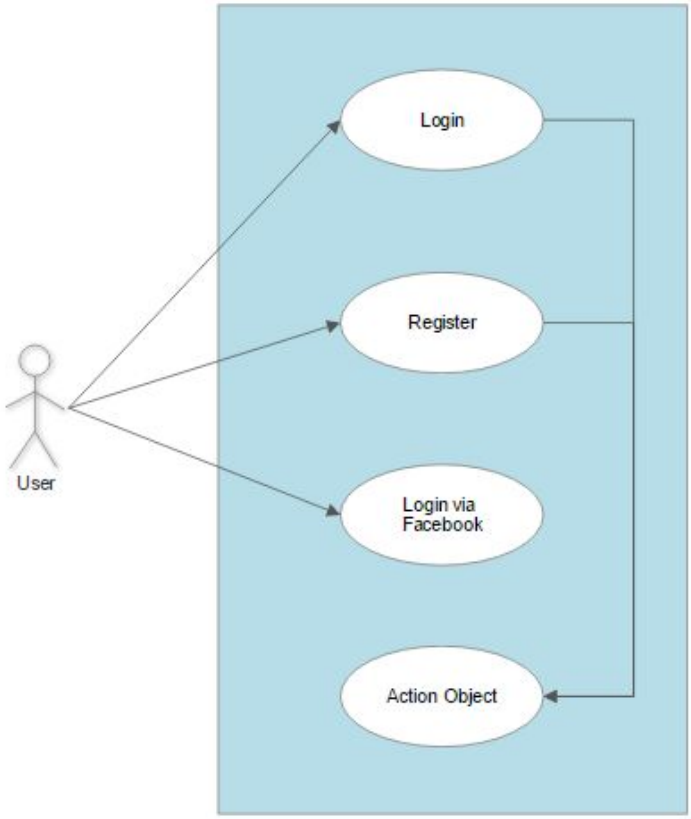
UML

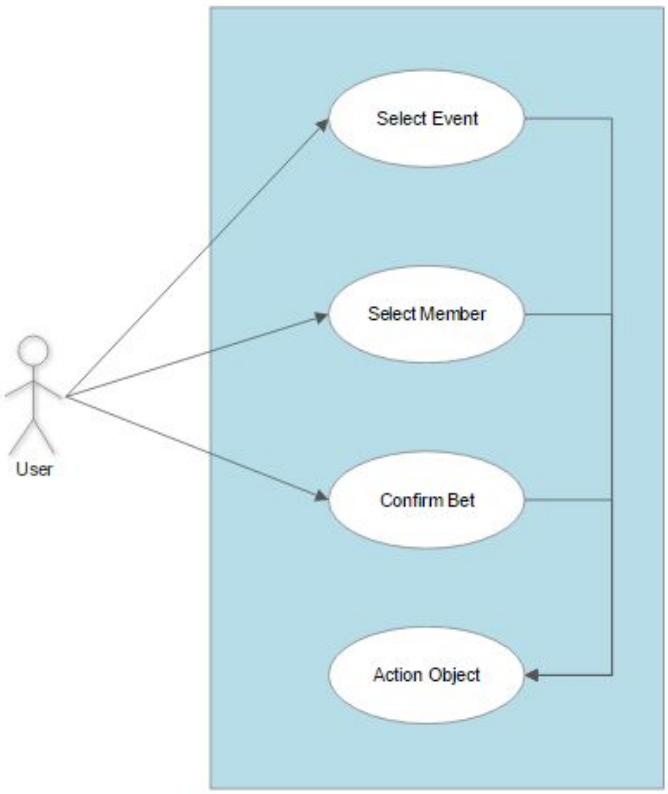
Use Case Scenarios




Create Group
Profile
Created Group
Action Object
User


Your Bets
Get Coins
Search
Settings
Help
Action Object
User


Login
Register
Login via Facebook
Action Object
User


Select Event
Select Member
Confirm Bet
Action Object
User

Use Case: Help

Primary Actors: Anyone using the application.

Goal in Context: To understand How Game Works.

Precondition: The system provides control information.

Triggers User needs to know how to get start betting.

Scenario:

1. Login “MevzuBahis”
2. When main menu appears click to help button
3. User guide appears.

Priority: Expected.

Use Case: Profile

Primary Actors: Anyone using the application

Goal in Context: Control the application.

Precondition: User needs to have an account.

Triggers: User needs to control his information.

Scenario:

1. Login “MevzuBahis”
2. Go to main menu
3. Click to right top.
4. Profile appears.

Priority: Essential must be implemented

Use Case: Create Group

Primary Actors: Anyone using the application.

Goal in Context: Reaching to the primary needs in the game

Precondition:

Triggers: User needs to create group in order to start betting.

Scenario:

1. Login “MevzuBahis”
2. Go to main menu
3. When main menu appears press the Create group button
4. Select friends
5. Group created.

Priority: Essential must be implemented

Use Case: Settings

Primary Actors: Anyone using the application

Precondition: User allowed to change configuration

Triggers: User needs to change graphics or sounds configuration

Scenario:

1. Login “MevzuBahis”
2. Click on settings button
3. Click on Notifications/sound configuration set the values
4. Application is updated

Priority: Expected

Exception: System does not support required specifications.

Use Case: Store

Primary Actors: Anyone using the application

Goal in Context: To buy a coin with $

Precondition: None

Triggers: Player need to buy game coin

Scenario:

1. Login “MevzuBahis”
2. Go to main menu
3. Press store button
4. Deals appear

Priority: Excepted

Use Case: Login

Primary Actors: Everyone

Goal in Context: To enter the application

Precondition: User has an account

Triggers: Players need to get in the application

Scenario:

1. Open “MevzuBahis”
2. Enter your account details
3. Press login button
4. Main menu appears

Priority: Essential must be implemented

Exception: User does not have any account.
Use Case: Register

Primary Actors: New users

Goal in Context: To get an account

Precondition: Not taken email, username

Triggers: User needs to get an account to use the application.

Scenario:

1. Open “MevzuBahis”
2. Press register button
3. Registration page appears

Priority: Essential must be implemented

Use Case: Search

Primary Actors: Anyone using the application

Goal in Context: To search users.

Precondition: -

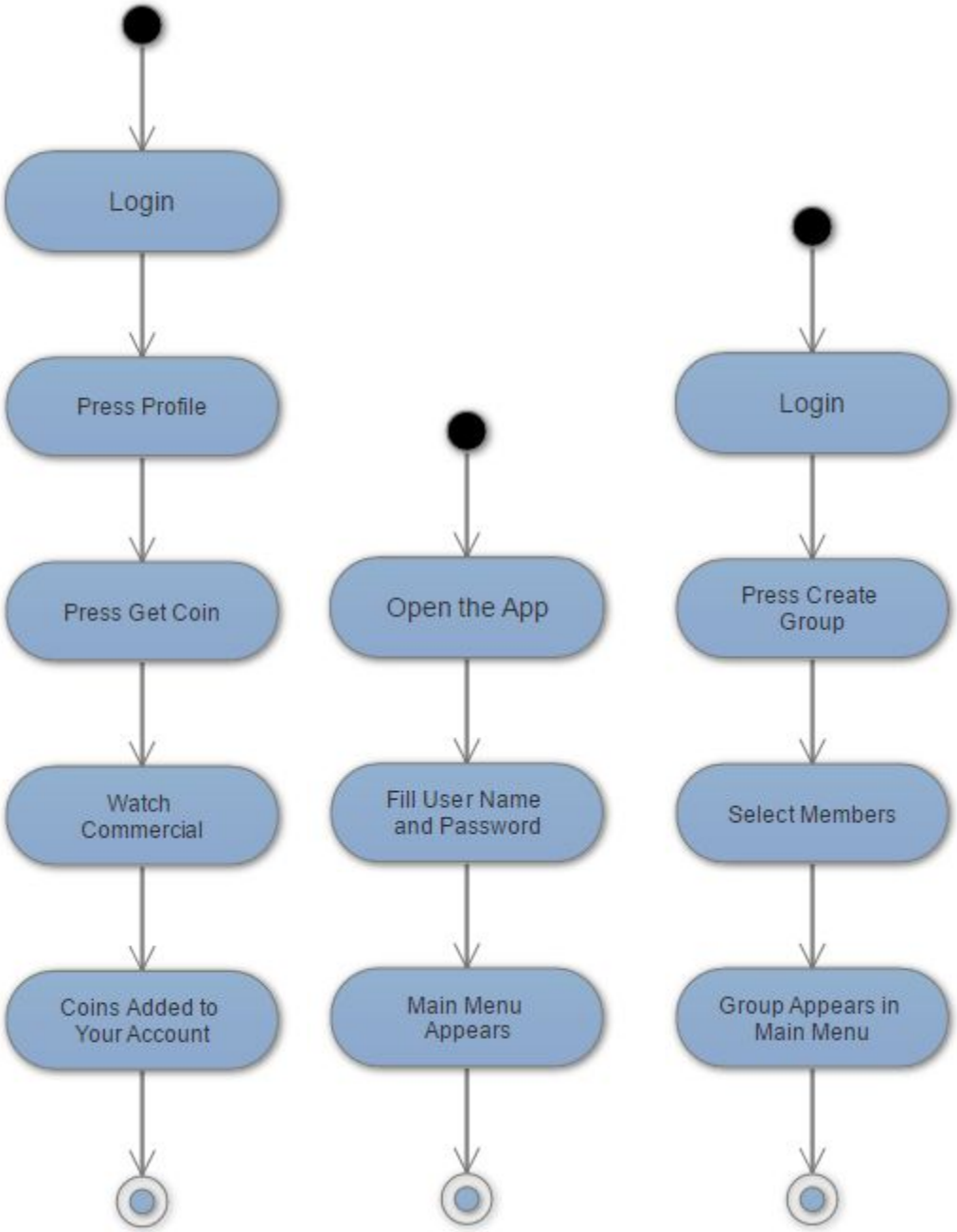
Triggers: Player needs to search profiles.

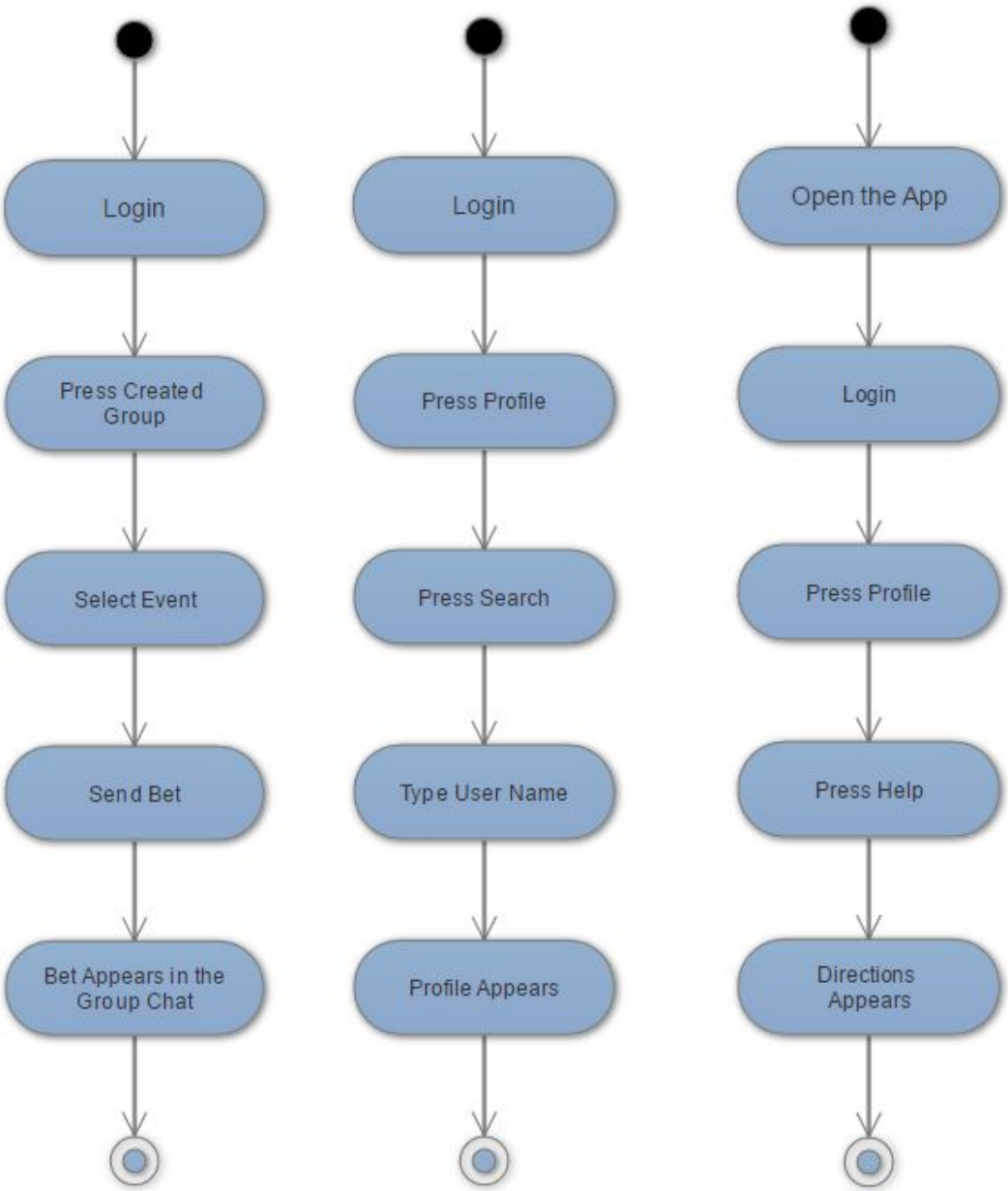
Scenario:

1. Login “MevzuBahis”
2. Press search button
3. Enter username appears
4. Profiles appears.

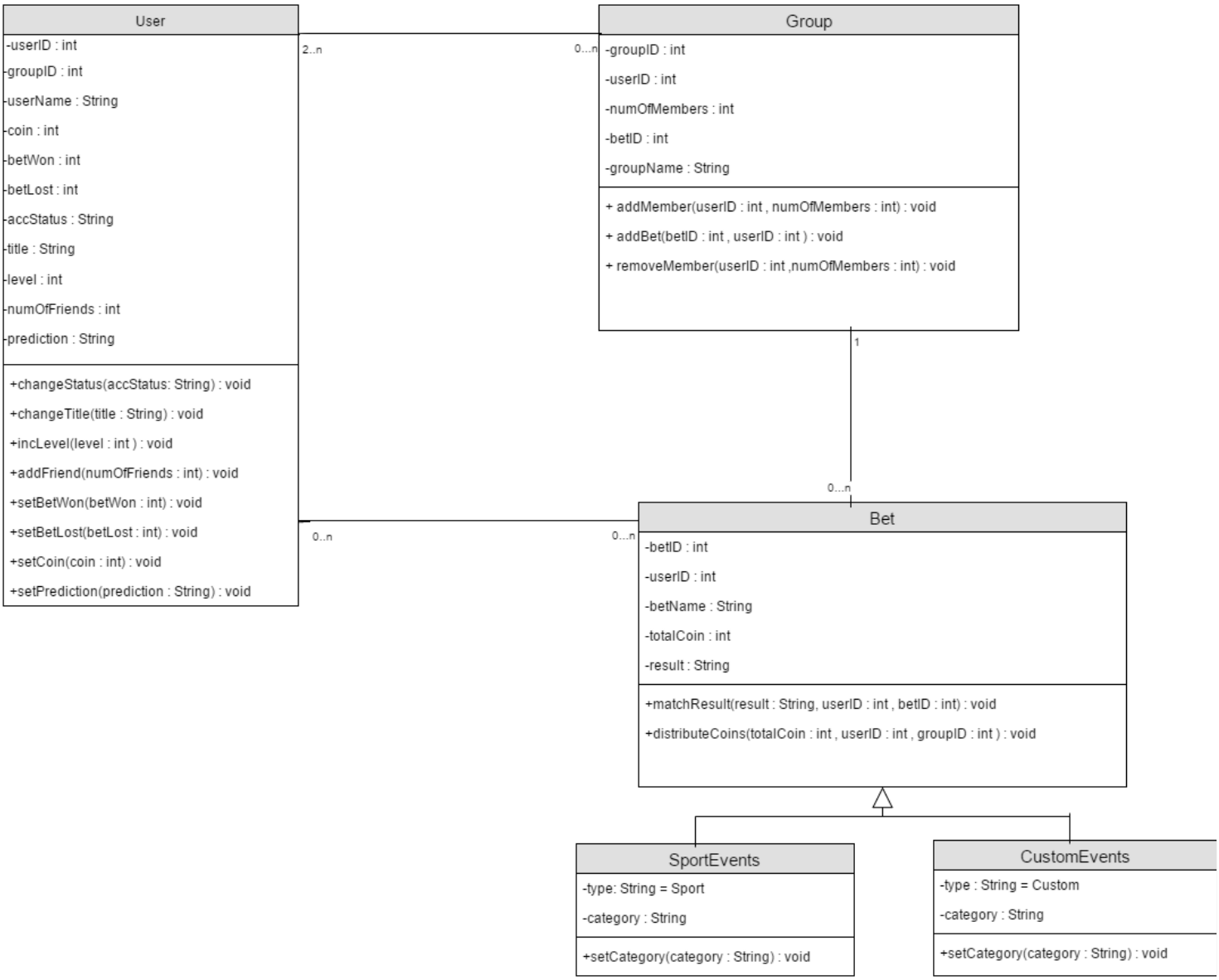
Priority: Essential must be implemented

Activity Diagram

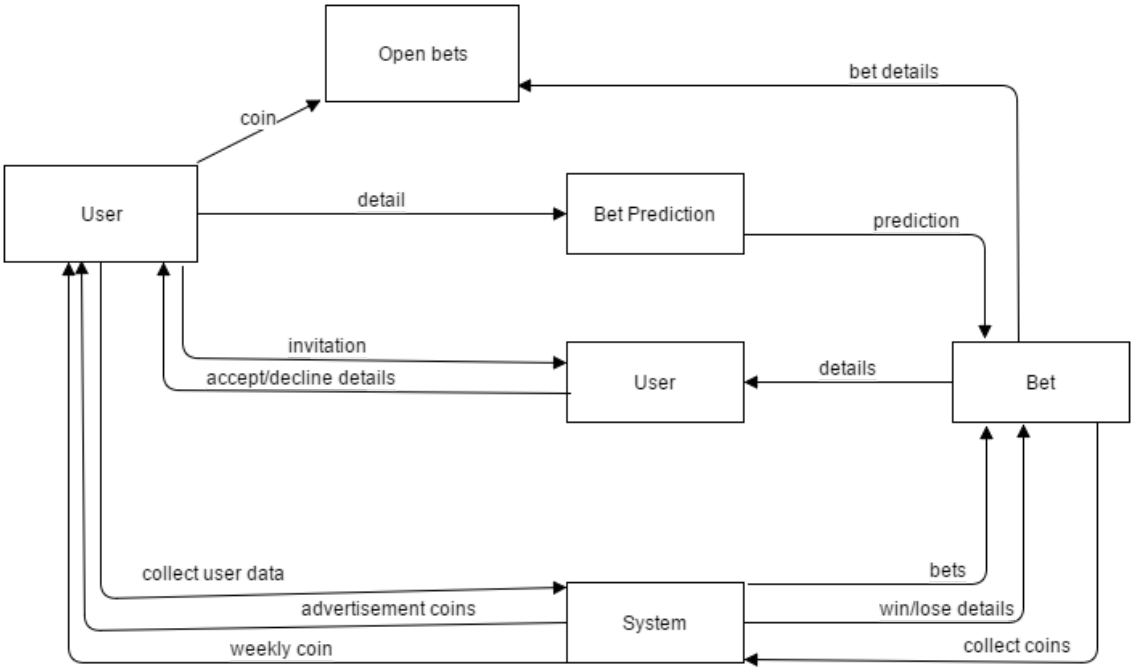



Login
Press Created Group
Select Event
Send Bet
Bet Appears in the Group Chat
Login
Press Profile
Press Search
Type User Name
Profile Appears
Open the App
Login
Press Profile
Press Help
Directions Appears

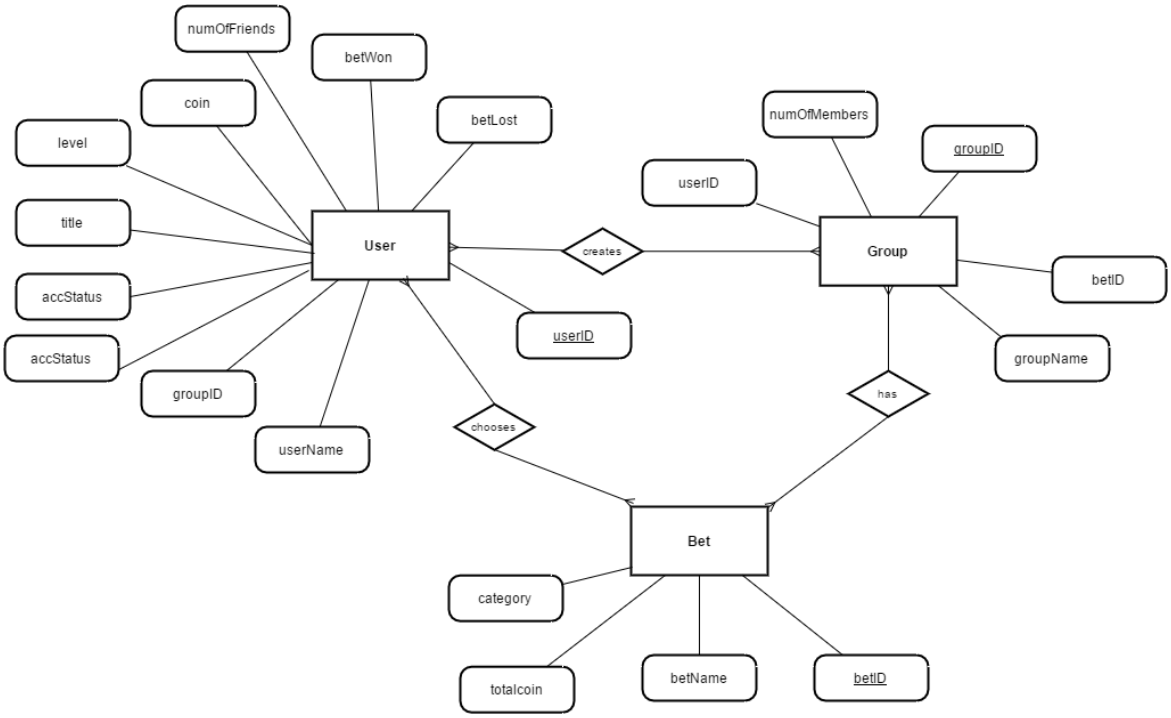
Class Diagram



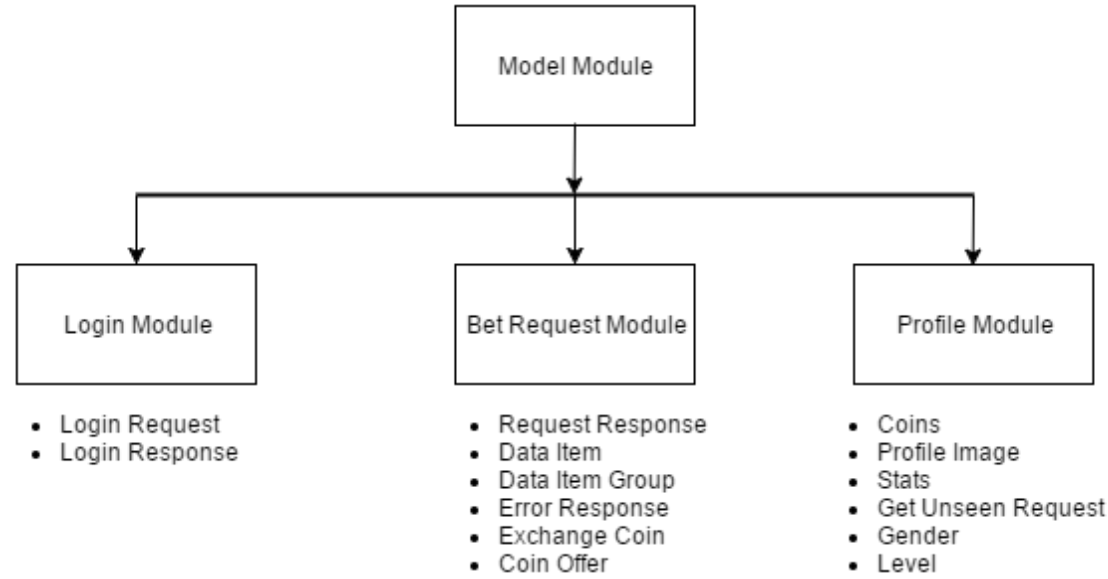
Dataflow Diagram

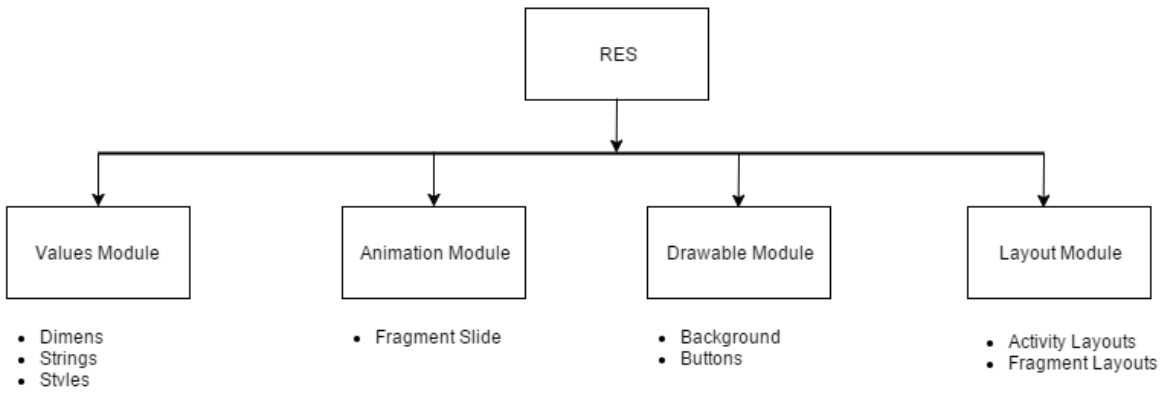


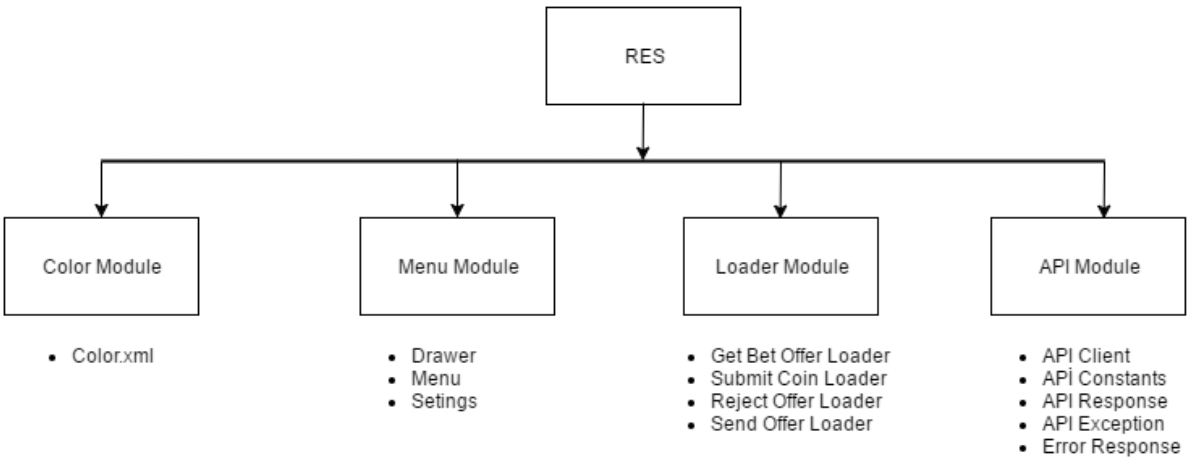
ER Diagram

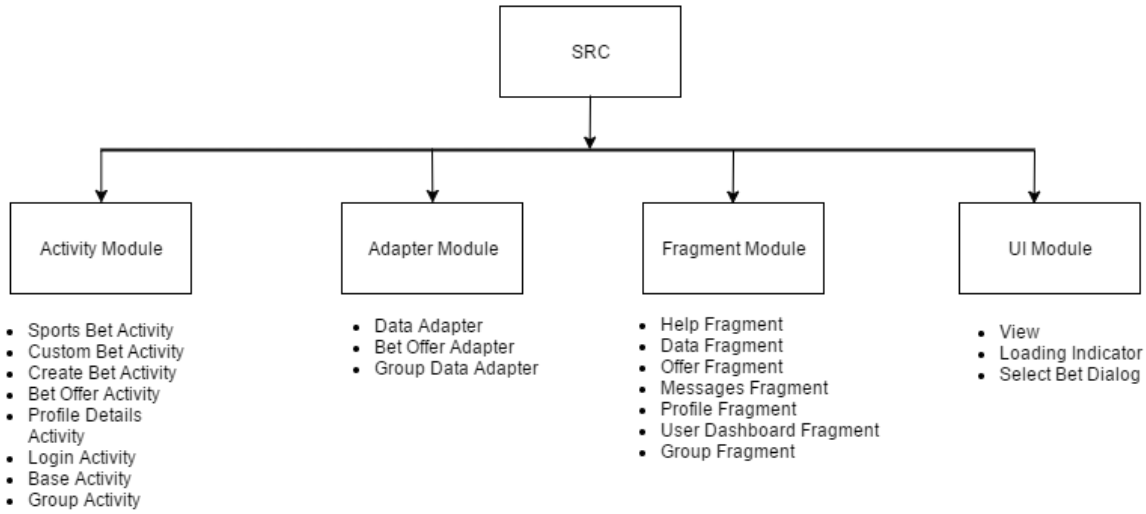


Hierarchy Model Module

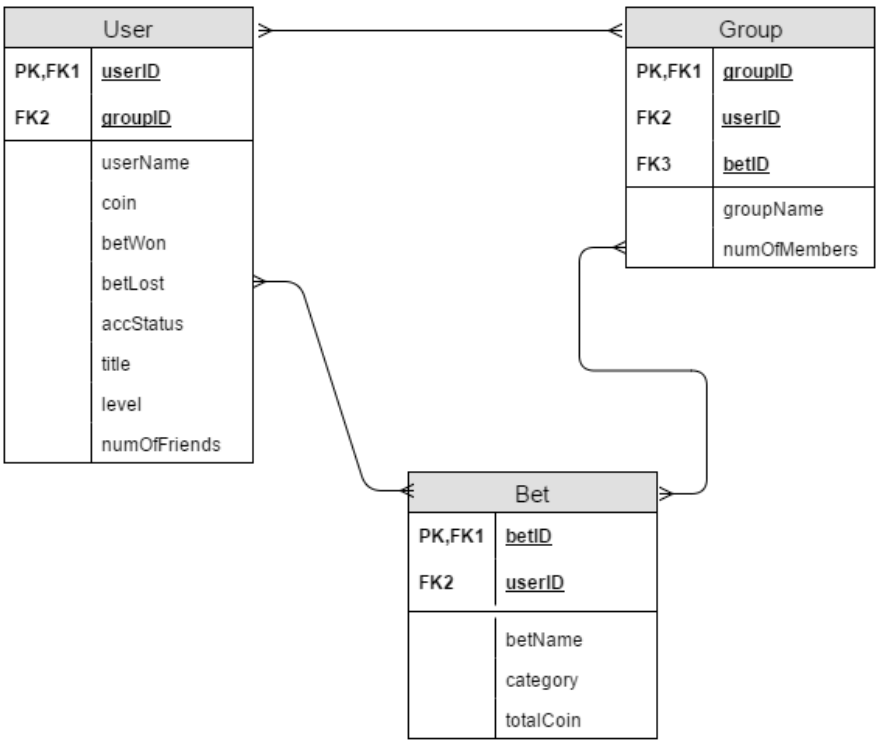





RES
Color Module
Menu Module
Loader Module
API Module
Color.xml
Drawer
Menu
Setings
Get Bet Offer Loader
Submit Coin Loader
Reject Offer Loader
Send Offer Loader
API Client
APİ Constants
API Response
API Exception
Error Response


SRC
Activity Module
Adapter Module
Fragment Module
UI Module
Sports Bet Activity
Custom Bet Activity
Create Bet Activity
Bet Offer Activity
Profile Details Activity
Login Activity
Base Activity
Group Activity
Data Adapter
Bet Offer Adapter
Group Data Adapter
Help Fragment
Data Fragment
Offer Fragment
Messages Fragment
Profile Fragment
User Dashboard Fragment
Group Fragment
View
Loading Indicator
Select Bet Dialog

Database Diagram



User Interface Mocks

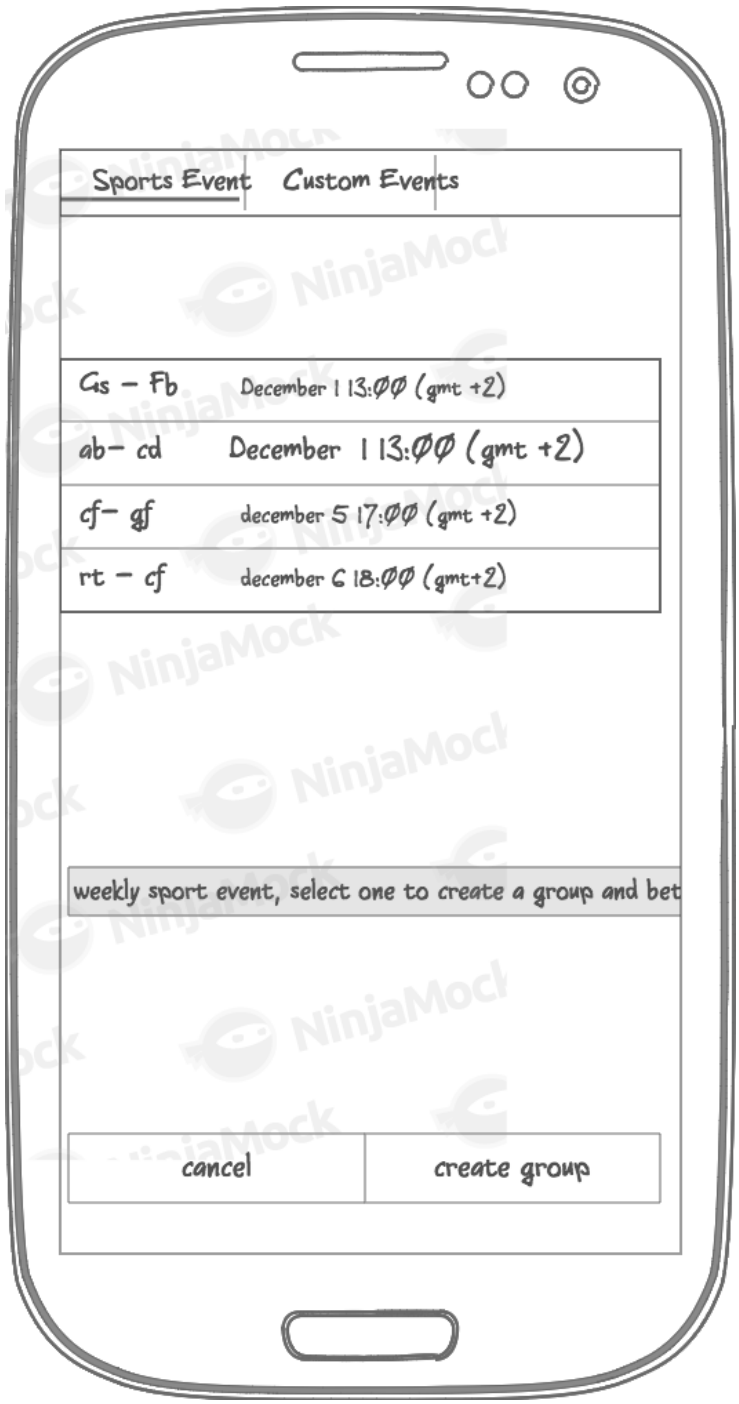
Here are the user interface mocks for “MevzuBahis” application.

Ps. those are only the mocks and can’t be 100% accurate, more feature can be added or removed in future.

Login Page

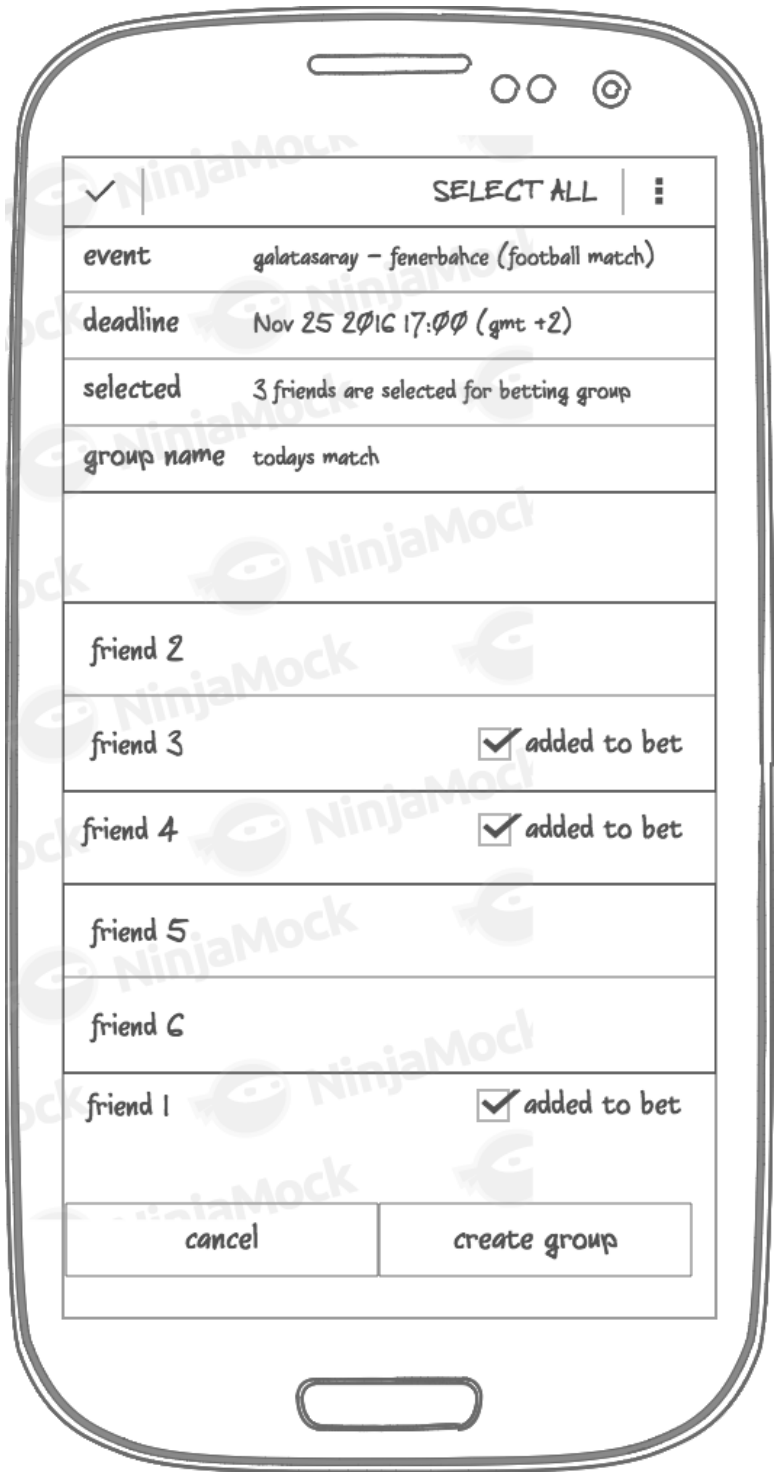
Users can login via their Facebook accounts and directly access their friends who uses Mevzubahis application or search and add them by searching with their names or e-mail addresses.

Main Screen


Sports Event
Custom Events
Gs – Fb
December 1 13:00 (gmt +2)
ab– cd
December 1 13:00 (gmt +2)
cf– gf
december 5 17:00 (gmt +2)
rt – cf
december 6 18:00 (gmt+2)
weekly sport event, select one to create a group and bet
cancel
create group

On main screen users can see the weekly sports and custom events listed by administrator, they can pick any event and start creating their betting group.

Create Group Page



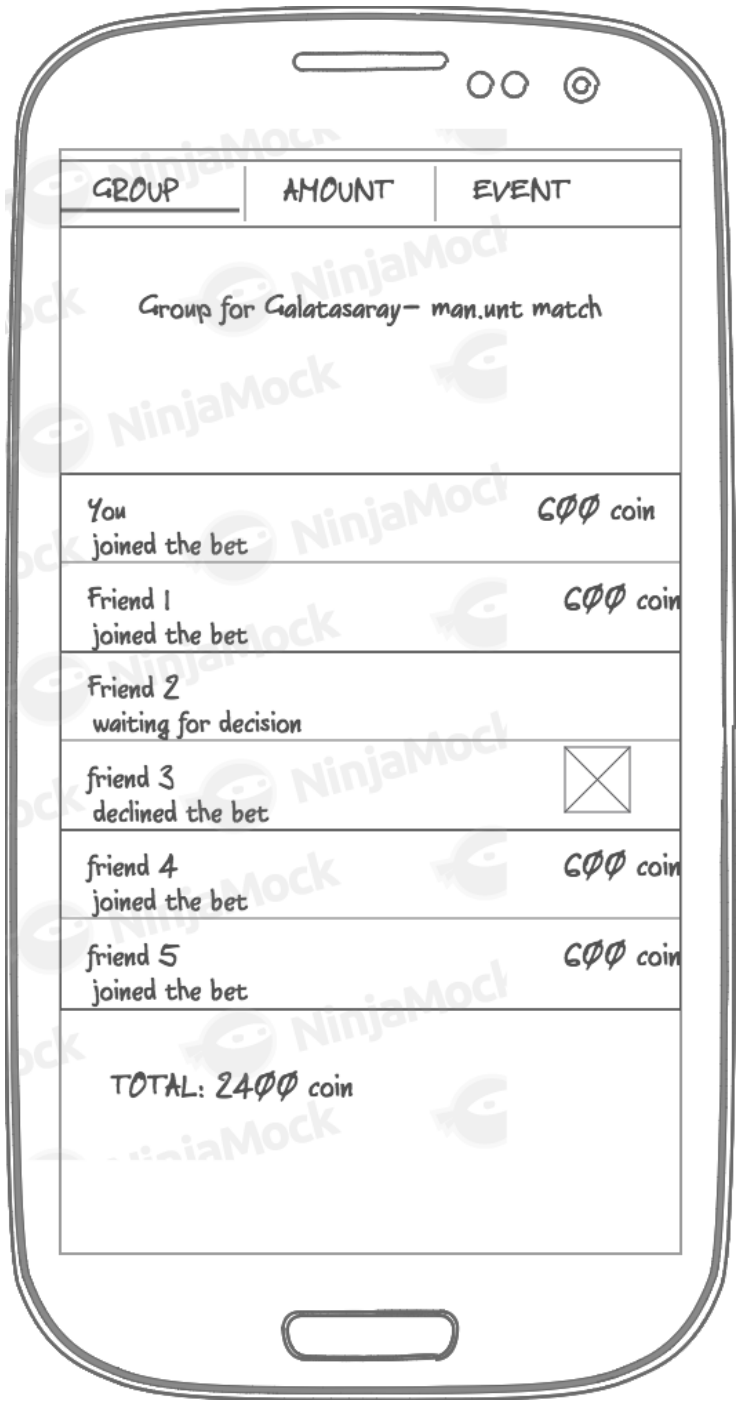
On this screen, users can see the event details and their friends, they can pick their friends who would like to bet and create the group.

Select Coin Amount Page

On this page, creator of the group can pick the amount that he/she likes to bet, everyone who would like to join the bet should put the same amount of money, if they don't have the

minimum amount of coin to join the group they can't join. (600 coins in this example, if user have 400 coins he/she can't join). Total amount of coins in the group saved in applications pool, winners get the coins accordingly after the event's deadline.

Group Page

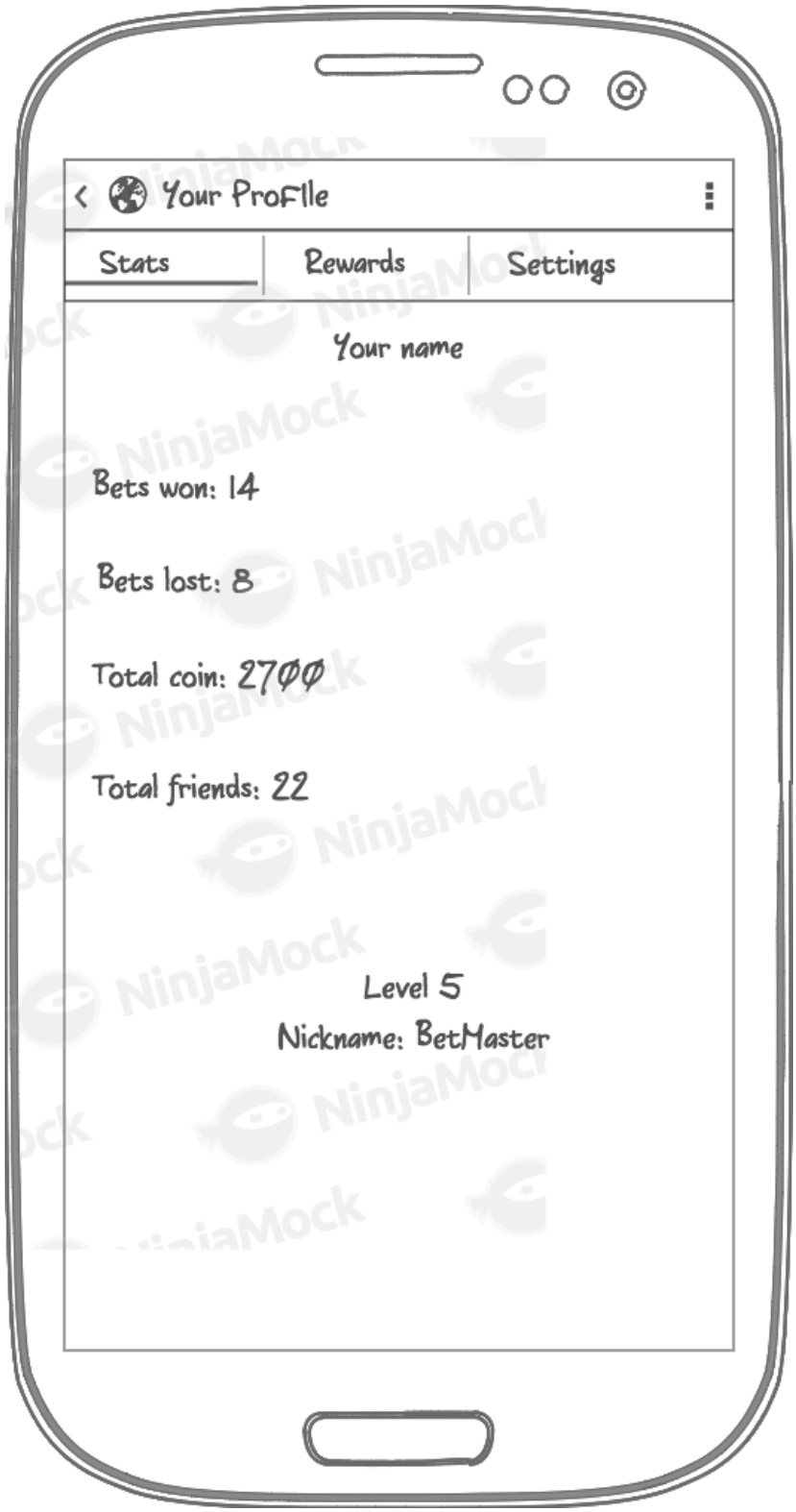


On group page, users can see their friends in it (who is declined, who is joining etc.) and some details about coin amount and event.

Notifications

Notifications are really important to get users attention for bets. Each user who is added to a betting group for an event get this kind of a notification about it. They can put the amount and join the bet or simply decline it.

Profile Page



Key Considerations

How will MevzuBahis handle data persistence?

The app will handle data persistence using a combination of SQLite databases and shared preferences. The SQLite databases will be accessed using a Content Provider design pattern. The shared preferences will be used for saving simple values for later use, such as whether push notifications are turned on or off.

Corner cases in the UX.

We will use material design in this application. Material design standards are minimalist and provides a good user experience according to the download statistics of Google Play Store.

Libraries in MevzuBahis application

Glide, for pictures.
Recyclerview, Cardview, Coordinator Layout for material design.
OkHttp for networking and sending JSON requests to the server.
Firebase for notifications.
ButterKnife for XML binding.

Programming Languages in MevzuBahis application

Mostly Java and Xml for markup. On back-end side, JSON, PHP, SQLite, Python.

User Roles

Most probably, there will be 2 different types of user:

1. Standard User
2. Premium User

We allow each player to create a group or challenge with their friends over their created groups.
Standard user has a limited capacity of creating a new group, to increase this, premium account is required.
We also give daily coin to every user. To collect free coins, users have to watch commercials. If user wants to avoid commercials, buying premium account is required.

Coin Management

In Social Betting each player perform bets with coins. After first logging in to the system users rewarded with some amount of coins (Amount will be determined while developing.)
If user spends their all coins, there are few earning methods such as;

1. Weekly Coins
Every week users will acquire free coins in certain day. (ex. Every Monday's).
2. Commercial Coins

In case of users spend all of their coins before weekly reward, there is another way for users to earn free coins by watching commercials. Users can earn coins just by clicking get free coins and watch a short trailer, but watching commercial is limited. User can not watch more than certain amounts of commercials.
User can see their coin balance from their profile. There will be a section which they can see how much coin they have.

*When user bets, the amount of coin will be taken from their coin balance. This amount will be transferred into the betting pool.

Bet Initialization

- To initialize a new bet users need to form a group between their friends. Groups can be settled between 2 to more people. After forming a new group, people can start betting with their friends. To send a new bet to the group, user need to select exactly one bet which can be custom bets which created by admins or popular sport events. After selecting the bet type of the desired bet, user will enter coin amount.
- Users must go for the same amount of bet if they want to involve to the betting.

Moderation

All the bets will be created by moderators. Users will select created topics to send their bets to their friend groups. Users can not create a new topic. All the topics should be selected from created betting pages which is created by moderators.

Describe the next task. List the subtasks. For example:

- Create layout
- Something else

Deciding on Bets

- Users can fill a small survey by clicking to “Survey” button which is located at the Profile Page. At the first part of the survey, users can select the social topics they are interested in. (e.g. politics, movies etc.) System sends these information to moderators and moderators creates Custom Bets by using these information. At the second part of the survey users choose the sport teams that they want to see bets about them. The options are determined by the administrators beforehand. If the choice which user

wants to pick is not in the survey, user can add his/her own option by clicking to the “Other” button. The system sends the information which is filled at the second part of the survey to moderators and moderators creates Popular Sport Events Bets by using these information.

- Main purpose of this survey system is to gather desired betting analysis from the user and promote the matches correspondingly in order to increase customer satisfaction.

Big Data Usage In “MevzuBahis”

Big data is a term for data sets that are so large or complex that traditional data processing applications are inadequate to deal with them. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying and updating and information privacy. The term "big data" often refers simply to the use of predictive analytics, user behavior analytics, or certain other advanced data analytics methods that extract value from data, and seldom to a particular size of data set. In “MevzuBahis”, when users log on to the system, they will encounter with some questions like “list your favorite teams and etc.” The system will collect this information gathered by users to calculate what’s popular among the users. Regarding this information the system will evaluate and post bets according to popularity of this topics. We believe that, this implementation will improve user experience and also attract the users to use the application and also we believe that this implementation will importantly reduce the number of non-popular bets.

Level and Tag Achievement

Users In “MevzuBahis” earn experience just by winning bets, by doing so they will earn special titles according to their betting category. For Example If user win 10 bets in row in sport category then he may win “Sport Master”. Earned titles will be shown next to user’s username so that everyone can see what they accomplished. We believe that this system will improve the user experience and create a much competitive environment for users. To earn a title, users must complete bunch of tasks. This tasks may vary depending on the category of

the bet. Not all the achievements will stay permanently in “MevzuBahis” For Example we may grant “untouchable” title to a person who has a 15 winning streak in any category and he will keep that achievement until his first lost.

Background Research

People have been betting on sporting events for a long time. Both the Greeks and Romans engaged in the practice. In more recent times, sports betting has grown into a multi-billion dollar industry. Betting on sports became popular in the United States in the 19th Century. The advent of television made betting on sports like baseball, football and basketball more popular among gamblers.

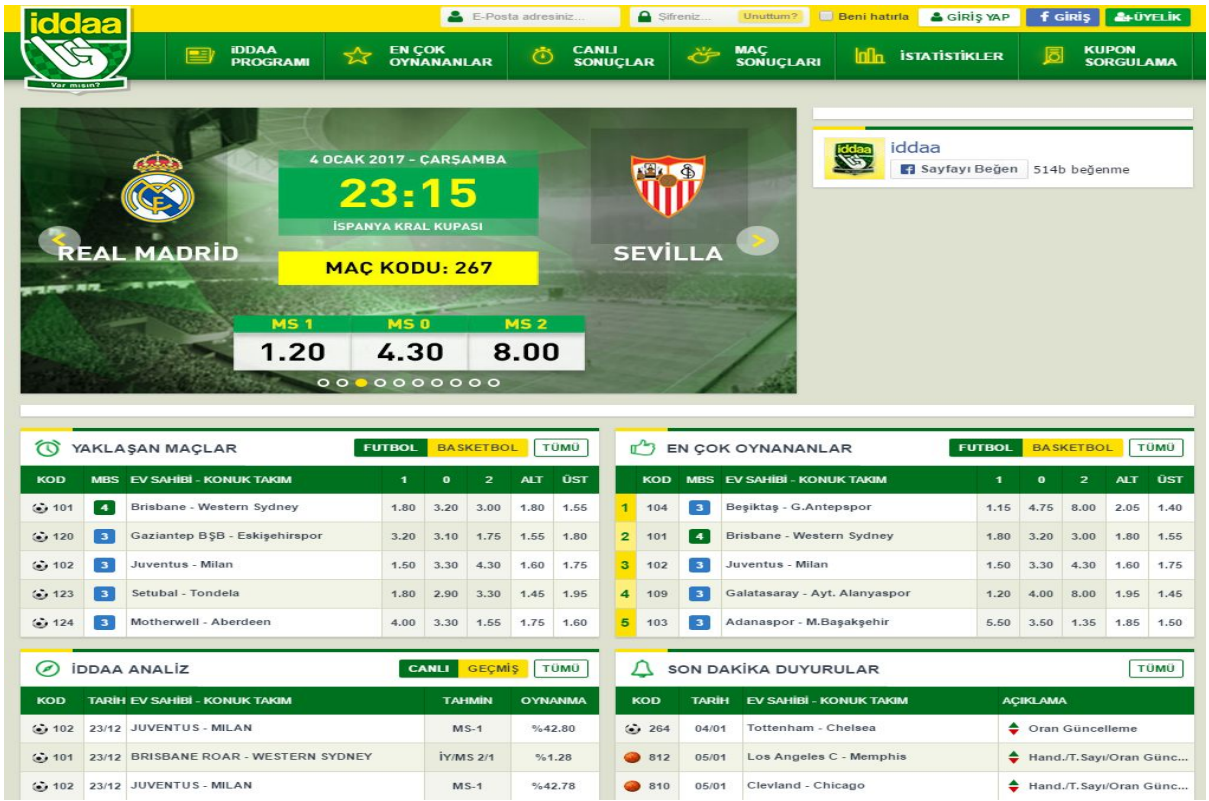
(http://sportsagentblog.com/2009/07/28/the-history-of-sports-betting/)

People are playing bets for years in Turkey , too. Some people play for winning money. Some people play for having fun , but they always lose. Even if they win some bets , they lose what they win in other bets. Because they are playing against the machine and the first rule of gambling is machine always wins. People are seriously complaining against this situation .They want to play bets and argue about these bets with their friends but they don’t want to lose their money.That’s why we decided to develop new application called Mevzubahis. In our app , people won’t play against the machine . They will play against each other and they won’t lose money anymore with our coin system.

-İddaa – Nesine.com – Bilyoner.com

There are lots of sport betting websites and mobile applications in our country. Although , there are lots of platform , there is only one system ; iddaa.

On the other hand , bets cannot be played on iddaa.com or their mobile application. There are only matches and ratios about matches in their web site and mobile application. (SS1 from https://www.iddaa.com/)



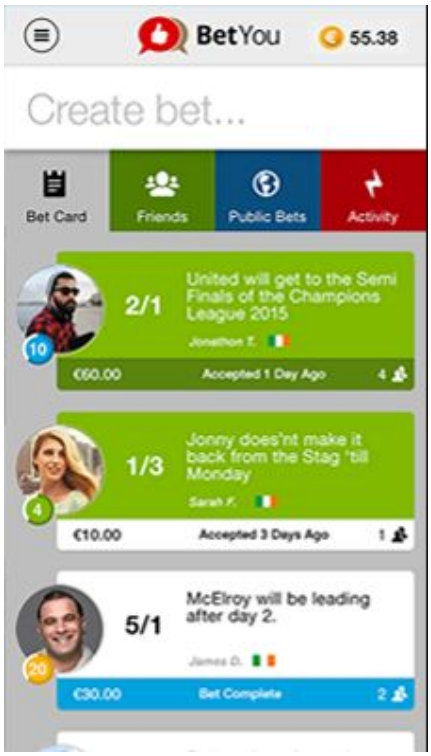
That's why there are some web sites and mobile applications like nesine.com and bilyoner.com. So , they are just virtual platforms that you can play iddaa.

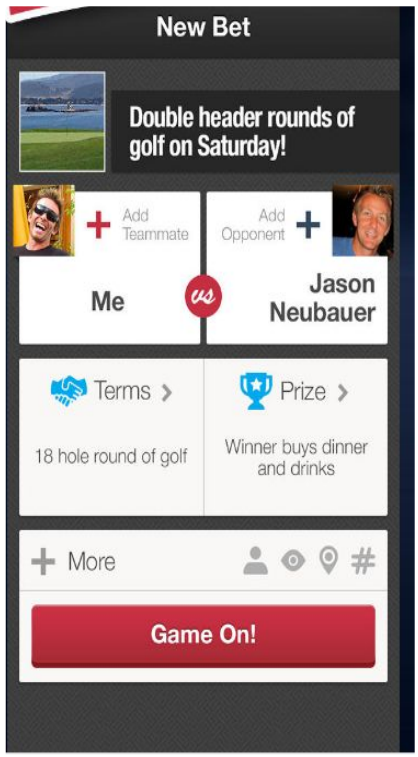
(SS2 from https://www.nesine.com/)

However , our bet system is absolutely different from iddaa and others. In this bet system , you have to choose at least three matches (except for special events) and calculate complicated ratios. Also you have to play against machine. Many people think that is not fun enough. That's why we decided to develop different betting system.

-Youbetme – Betyou

On the other hand , our custom bet system is something more special. There is no good example of it in our country. Its background based on Europe. It is very popular among university students in Europe. We think that similar custom bet system can create same effect among Turkish students.

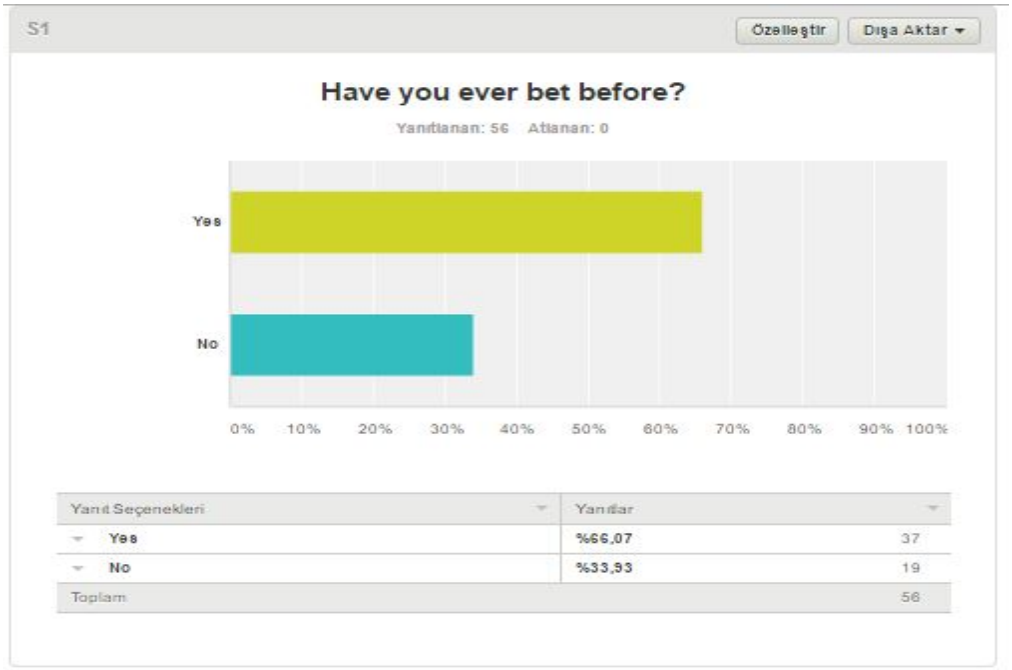




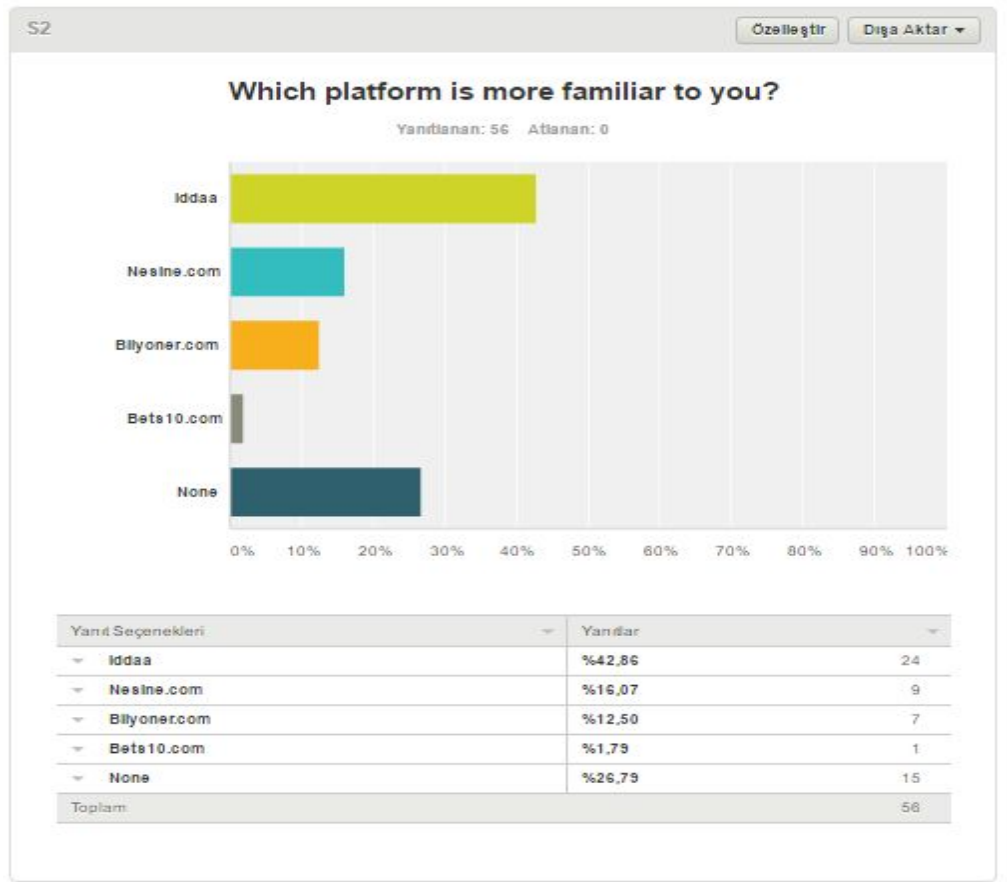
In these mobile applications , bet can be played on anything and the prize can be anything. It is all up to users. For example, you can bet on 'I will drink five beer in ten minutes' and determine prize like 'loser will pay all the beers we drink tonight.'

-Survey

The results that you see below are prepared from surveymonkey.com. 56 people participated our survey.



Yanıt Seçenekleri	Yanıtlar	
Yes	%66,07	37
No	%33,93	19
Toplam		56



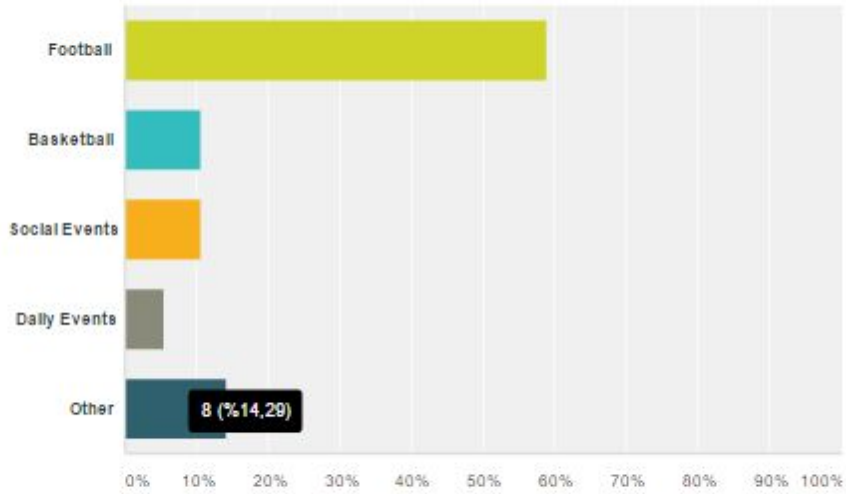
Yanıt Seçenekleri	Yanıtlar	
Iddaa	%42,86	24
Nesine.com	%16,07	9
Bilyoner.com	%12,50	7
Bets10.com	%1,79	1
None	%26,79	15
Toplam		56

S3

Özelleştir | Dışa Aktar

Which of the following features do you pay more attention when you are betting?

Yanıtlanan: 56 Atlanan: 0



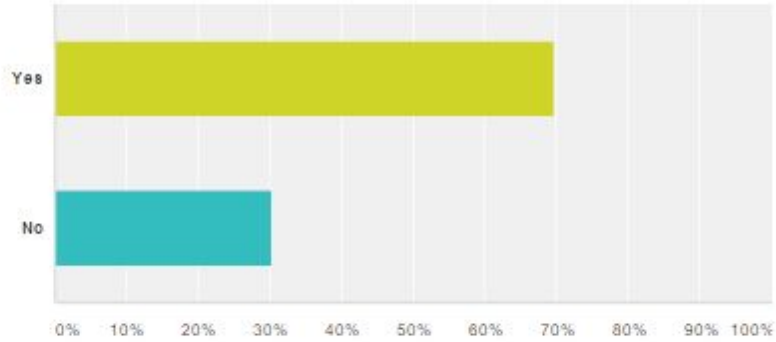
Yanıt Seçenekleri	Yanıtlar	
Football	%58,93	33
Basketball	%10,71	6
Social Events	%10,71	6
Daily Events	%5,36	3
Other	%14,29	8
Toplam		56

S4

Özelleştir | Dışa Aktar

Do you like challenging with your friends

Yanıtlanan: 56 Atlanan: 0



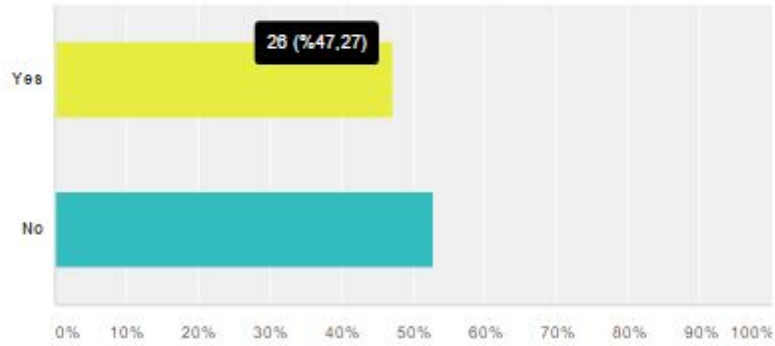
Yanıt Seçenekleri	Yanıtlar	
Yes	%69,64	39
No	%30,36	17
Toplam		56

S5

Özelleştir | Dışa Aktar

Have you ever heard "Social Challenging?

Yanıtlanan: 55 Atlanan: 1



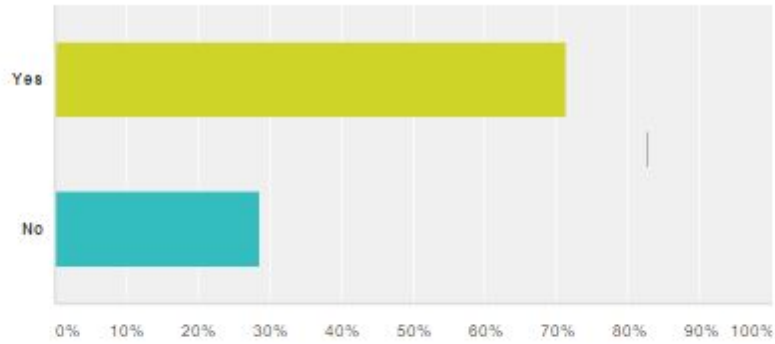
Yanıt Seçenekleri	Yanıtlar	
Yes	%47,27	26
No	%52,73	29
Toplam		55

S6

Özelleştir | Dışa Aktar

Will you use a platform where you can challenge with your friends?

Yanıtlanan: 56 Atlanan: 0



Yanıt Seçenekleri	Yanıtlar	
Yes	%71,43	40
No	%28,57	16
Toplam		56