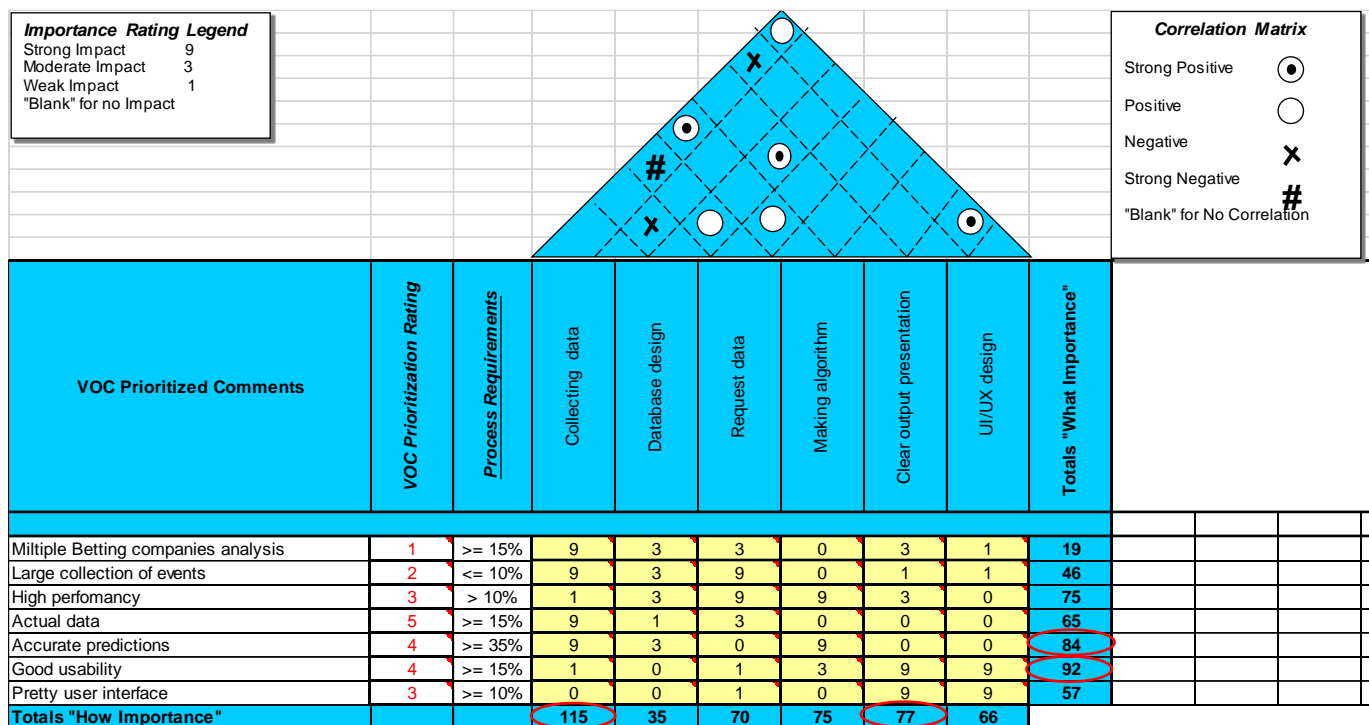Nikita Minakov CSSE-1707

Milestone #1 (Project Step)

1. APPLICATION DESCRIPTION

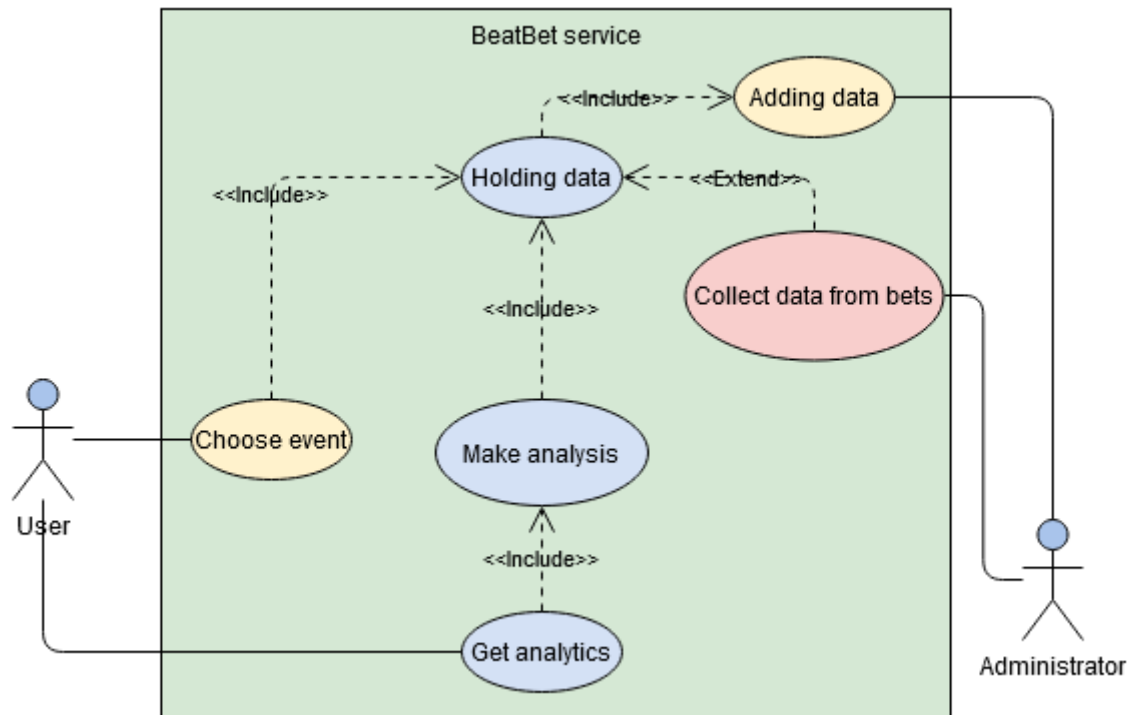Topic: The Football analyses (from 1xbet, olymp)

Usually, bookmakers do pre-match analytics in order to better set odds for themselves. Their algorithms and techniques are not disclosed, otherwise it would be easier to beat them. But our service *BeatBet* does the opposite task, provides analytics based on bet data, takes into account odds for events, the presence of an event and other available factors. Our requirements will be mainly analytics from bet events from chosen match, if data will be in database. A more detailed description is provided through the diagrams below.

2. Quality function Deployment

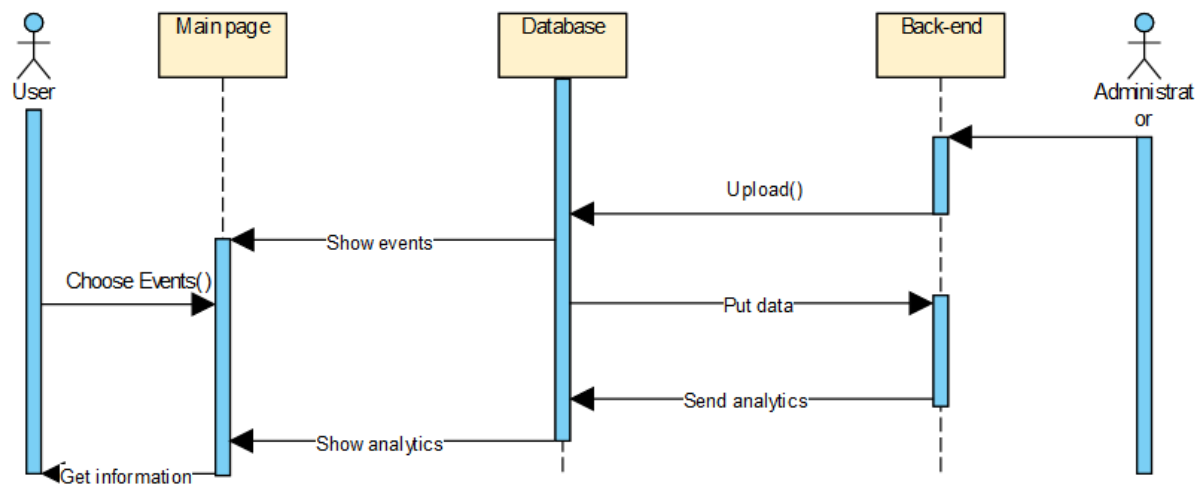| VOC Prioritized Comments	VOC Prioritization Rating	Process Requirements	Collecting data	Database design	Request data	Making algorithm	Clear output presentation	UI/UX design	Totals "What Importance"
Miltiple Betting companies analysis	1	>= 15%	9	3	3	0	3	1	19
Large collection of events	2	<= 10%	9	3	9	0	1	1	46
High perfomancy	3	> 10%	1	3	9	9	3	0	75
Actual data	5	>= 15%	9	1	3	0	0	0	65
Accurate predictions	4	>= 35%	9	3	0	9	0	0	84
Good usability	4	>= 15%	1	0	1	3	9	9	92
Pretty user interface	3	>= 10%	0	0	1	0	9	9	57
Totals "How Importance"			115	35	70	75	77	66	

QFD show, that we have two key features, which need to take in account – Accuracy and Usability. The two important design stages are Collecting data and Clear output (it is related to statistics drawing). Thus, we can implement these features and stages at the first time.
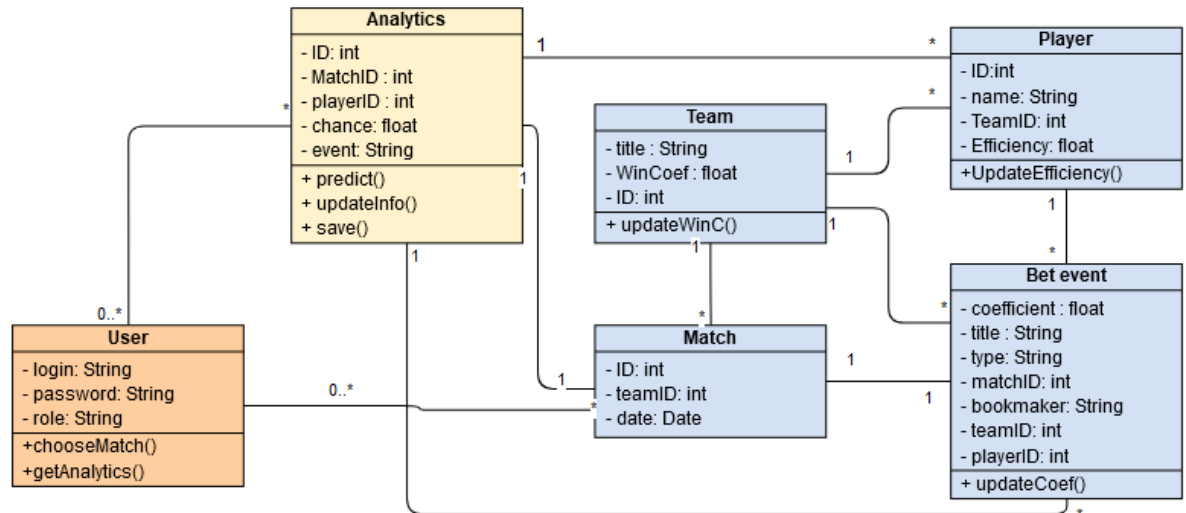
3. Use case diagram

Use case diagram show process of getting analytics from chosen event. Preconditions are Adding data or Collecting data from bets.
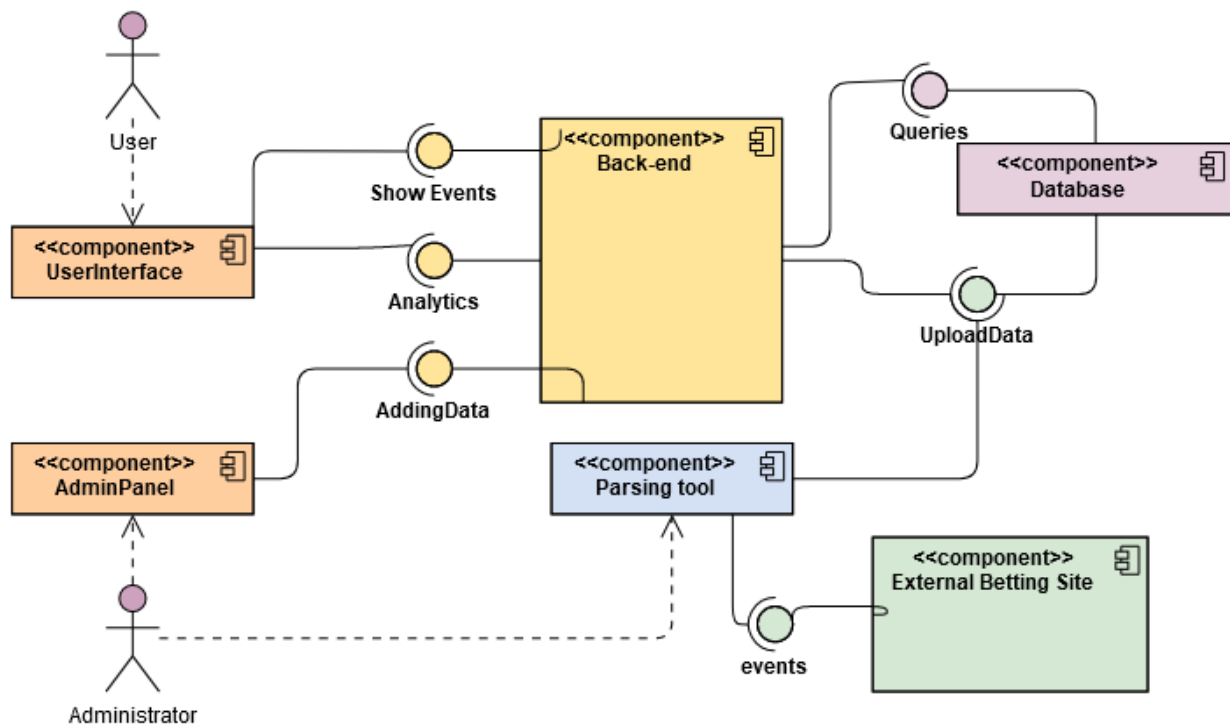
4. Sequence diagram

These interactions show sequence by time. Database will store information permanently. Usually, analytics will processed as soon as data available.

5. Class diagram

At the projecting stage, I have these classes, however in implementation of service, this number can increase.

6. The component diagram

Here is shown the pathways among components and ports, which related to data transfer channels.

7. DATABASE

This application is using a remote online database server and has the consist of JSON documents about betting events, which are stored in Bookmaker's events

collection. Other collections – Players and Teams will be present data and may contain own coefficients for analytics. Also is required to store the matches. The main collection is Analyses, which contain predicted facts with chances. If I will have enough time, database can be include small videos of key moments of match. Thus, list of collections:

- Bookmaker's events
- Players
- Teams
- Matches
- Analyses
- Video moments (probably)