



QA Fundamentals
March 2016

TEAM | ECHIDNA



Click&Play

Резервация на корт с един клик на мишката!

Introduction

This is an overview of Clickandplay.bg — a web-based app which automates and simplifies the time-slot bookings at tennis clubs. The platform serves two type of clients — business and end users. From functional perspective to our business clients the system may be regarded as Customer Relationship Management system. Listed here are the system's functionalities, it's highlights some technical and organizational implementation issues.

Scope

This project is about the development of an online time-slot booking platform for tennis clubs and players. Thus, the platform will serve as a CRM system to the its business users and as a simple booking system for its end users. The most advantageous feature of the system is serving as an time- and money-efficient means of communication between tennis clubs and amateur tennis players, sparing both parties the effort of time-slots booking by phone and within the restrictions of the clubs' working times. It involves using technology to organize, automate, and synchronize bookings and customer service.

Product perspective

Clikandplay.bg is a simple and fast online platform for booking time slots for tennis courts. The platform provides its services through a web-based application.

Our business clients — tennis clubs — pay an annual subscription fee for the publicity they receive along with all the app's functionality. Once they buy their subscription each club creates its personal account and profile that they self-manage.

The end users — the players — use the system for free. All they need is to sign up for the service, then with just a few clicks they can choose the tennis club, the court and floor type and book the time slots that suit them best. The service is accessible at any time and from any device with internet access, meaning that club members can book courts from their smart phones, laptops, desktops and tablets.

Tennis clubs on the other hand, may use the system to organize their work and book time slots even for the non-registered users, who book their hours on site or by phone.

The interface is intuitive, requiring minimal to no training in order to be used both by the tennis clubs' staff and the players.

Clickandplay.bg will run on a dedicated webserver available 24/7 and hosted by the software provider.

Product functions for the business

- **Automates tennis clubs' administration thus helping save time and money**

A tennis club no longer needs waste precious time on numerous phone calls from client players. Once they publish their weekly schedule and keep it up to date, bookings happen on their own.

- **Optimises the clubs' schedules to maximise sales**

The easier it is for players to book their convenient time slots, the more they book. C & P makes it easy to see the time-slot availability with a quick view and choose the one that suits their own schedules best.

- **Improves client service**

If a player wants to book a time slot, it no longer needs to happen within the club's working time. The system is up 24/7 and players can now book whenever they feel like and at any place where their device can be connected to the internet. And it is virtually impossible for two time slots to be booked by two different people. And, after the booking is done, the system sends a confirmation message to the client's listed email address, plus a reminder message in the day of the booking.

- **Eliminates paper schedules**

The clumsy, inflexible paper schedules become obsolete. Whenever a change occurs, it is easily reflected in the automated time-slot booking system — the previously booked time gets cleared and available for other players to book and the new time slot becomes reserved for the player who booked it.

- **Process tracking at any time and any place with internet connection**

Tennis club managers can now easily check their club's time-slot sales.

Product functions for the end users

- **Online tennis court booking capability at any time**

As long as one has signed up to the system, has a device that can connect to the internet and an internet connection available, player can book the time slot for a tennis game that suits their own schedule.

- **Easy access to the courts' schedule**

One doesn't need to have created a complete profile within the system, to be able to view and interact with the schedule of their tennis club of choice. Less than a few clicks and they're there. Two more clicks and their tennis game is booked.

- **Easy coordination between players**

Want to invite a friend for a tennis game? Or to challenge several players into a tournament? The only thing all of you need to do is log into the system, choose the club you want to play at, open its schedule and select the time, floor and court type the suits you all.

Assumptions, Dependencies & Constraints

Assumptions

The platform will start by approaching as many of the tennis clubs in the country as possible. The more tennis clubs decide to run their business through the system, the better service will be provided to the players.

Apart from its automated, organizational functionalities, the platform provides a great publicity opportunity to tennis clubs, targeted at a dedicated, active audience.

Dependencies

Constraints

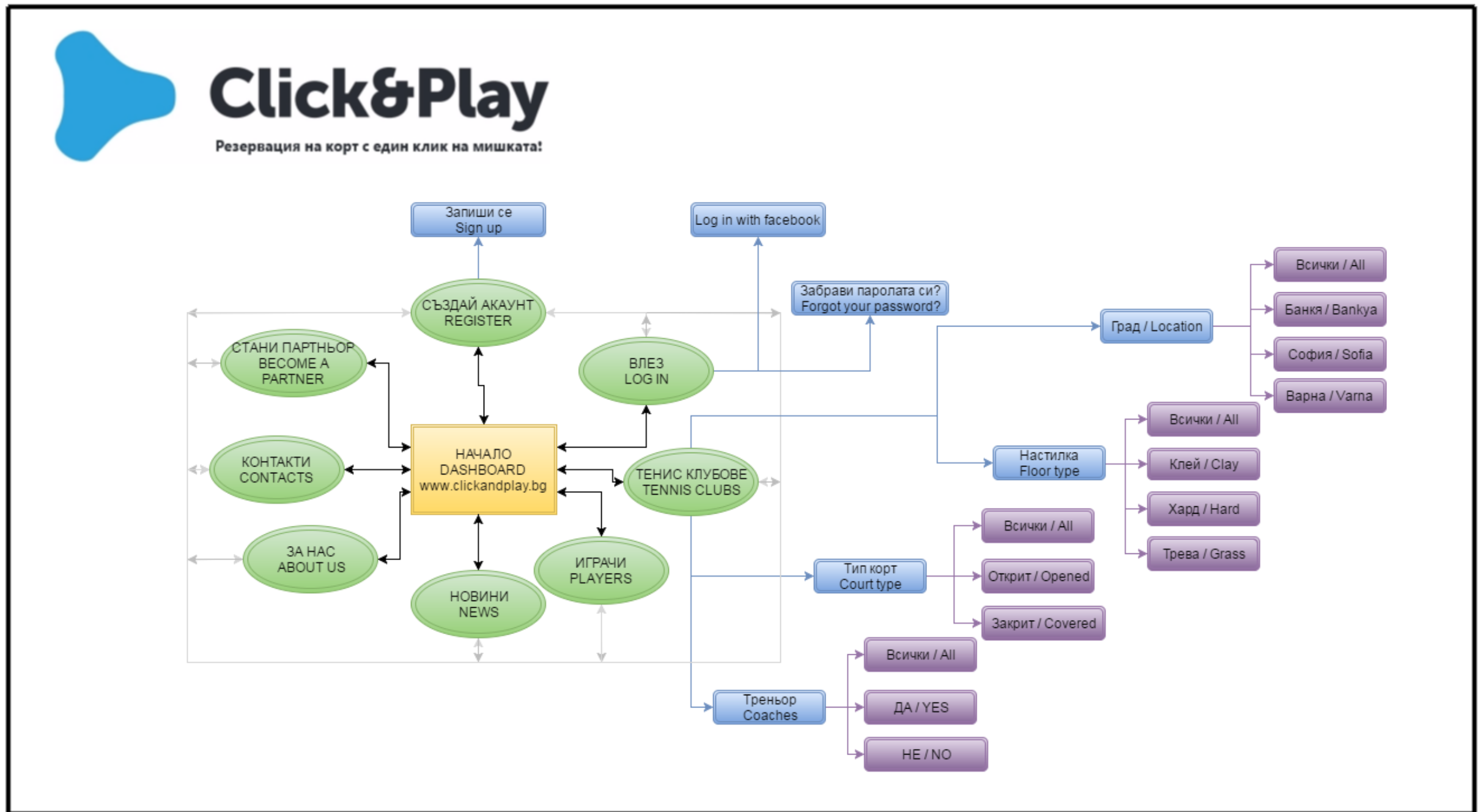
Critical Success Factors

Some of the critical factors for the successful ClickAndPlay's performance are:

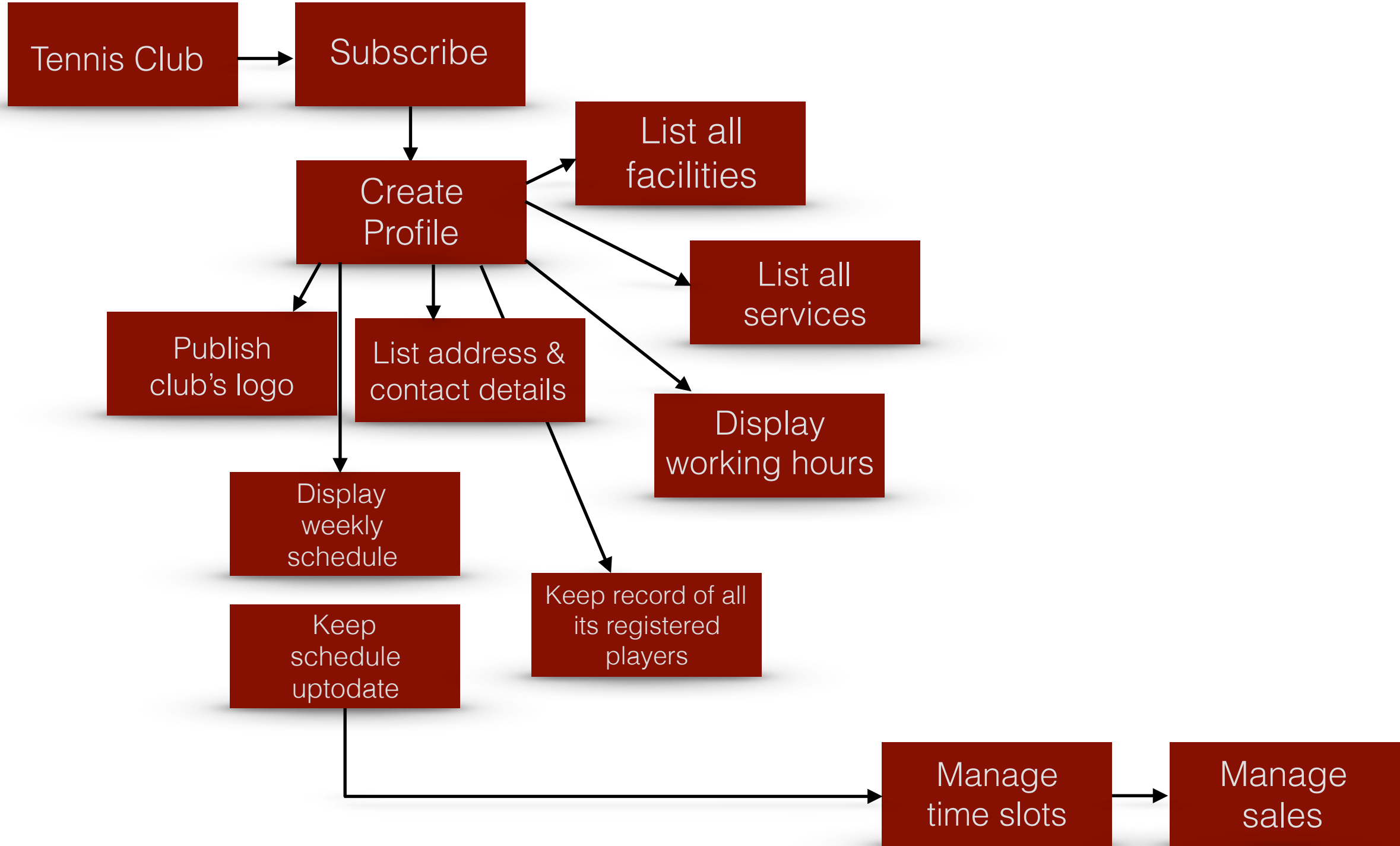
- The system's availability and reliability
- The participation of as many tennis clubs in as many locations throughout the country
- The clubs' diligent maintenance of their own profiles
- The clubs' diligent day-to-day maintenance of their schedules on the system

Flowcharts

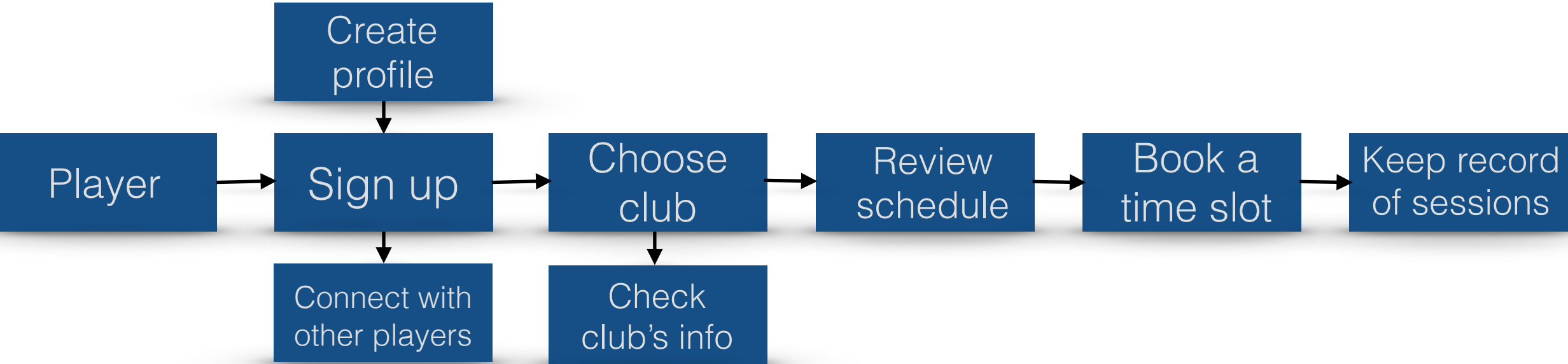
Flowchart — General



Flowchart — Business User



Flowchart — End User



Specific Requirements

Product Functions

Use Case Class	No.	Uses Cases	Description
Dashboard Home	1	View Home page	Land at Home page
System Authentication	1 2 3	Log In Log In w/ Facebook Forgotten Password	Log In to clickandplay.bg Log In to CAP w/ FB Retrieve Pass/Create New
Create an Account	1 2	Create an account Agree w/ T&C's	Create an account Read & Agree w/ T&C's
Edit Profile	1	Edit personal info	Insert or edit personal info in profile
Tennis Clubs	1 2	Review partner TC's Choose a TC to book at	View partner club profiles Choose the club to play at
Players	1	View Player Profiles	Look at the profiles of other users registered to the system
News	1	View the News section	See the news
About Us	1	View the About Us section	Read the About Us info
Contacts	1 2	View the Contacts Contact C&P	See the C&P contact details Send C&P email thru the form
Become Partner	1	Become a Partner	Contact C&P to become partner

Functional Description

or the various Use Cases in detail

Functional Description: Use case related to Home

Use Case #1: Dashboard/Начало

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User is allowed to go to “Log in”
2. User is allowed to go to “Tennis clubs”
3. User is allowed to go to “Players”
4. User is allowed to go to “News”
5. User is allowed to go to “About us”
6. User is allowed to go to “Contacts”
7. User is allowed to go to “Create an account”
8. User is allowed to make a reservation by “Container boxes”

Functional Description: Use cases related to System Authentication

Use Case #1: Log In

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User initiates browser
2. User specifies web address for accessing the CAP
3. User gives the login and password (see **USER SCREENS**)
4. System does authentication
5. Activity Stream is displayed

Alternate scenario:

- 4.1 Authorization fails – wrong username/password
 - 4.1.1 Prompt the user that he typed the username/password wrong
 - 4.1.2 Allow him to re-enter the username/password
- 4.2 Authorization fails – forgotten username/password
 - 4.2.1 Prompt the user to enter his registered email
 - 4.2.2 User receives an email with instructions about his login credentials

Functional Description: Use cases related to Create an account

Use Case #1: Create an account

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User initiates browser
2. User specifies web address for accessing CAP
3. User goes to "Create an account"/"Създай акаунт"
4. **User types an existing e-mail address**
5. User types password
6. User retypes password
7. **User agrees with terms of service**
8. User selects "Sign up"/"Запиши се"
9. **see USER SCREENS**
10. A message is displayed on top of the page
"Welcome! You have signed up successfully."/"Добре дошли! Вие се регистрирахте успешно."
11. System does authentication

Alternate scenario:

4.1 **User writes already existing e-mail address**

4.1.1 Prompt the user that he typed already existing e-mail address

4.1.2 Allow him to retype e-mail address

4.2 User password and repeat password don't match

4.2.1 Prompt the user that he typed different passwords

4.2.1 Allow him to retype passwords

Functional Description: Use case related to Edit Profile

Use Case #1: Edit profile information

Primary Actor: User

Pre Condition: User logged in

Main scenario:

1. User goes to “Edit profile information” located on the top left pane
2. User types his “Username”/“Потребителско име”
3. User types his “First name”/“Име”
4. User types his “Last name”/“Фамилия”
5. User types his “Phone”/“Телефон”
6. User types his “Favorite player”/“Любим играч”
7. User types “Playing since”/“Играя от”
8. User is allowed to select from the available cities “City”/“Град”
9. User is allowed to upload an “Avatar”/“Профилна снимка” from his computer
10. User is allowed to change his password “New password”/“Нова парола”
11. User is allowed to confirm his password “Password confirmation”/“Повтори новата парола”
12. User types his “Current password”/“Сегашна парола”
13. User notes for “Notify me for upcoming bookings”/“Извести ме за предстоящи”
14. User selects “Update”/“Промени”

Alternate scenario:

10.1 User password and confirm password don't match

10.1.1 Prompt the user that he typed different passwords

10.1.2 Allow him to retype passwords

12.1 User current password doesn't match with password he has typed

12.1.1 Prompt the user that he typed different passwords

12.1.2 Allow him to retype password

Functional Description: Use cases related to Tennis Clubs

Use Case #2: Choose a Tennis club to book at

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User is allowed to choose "location" ("Град")
 - 1.1 "Bankya" ("Банкя")
 - 1.2 "Varna" ("Варна")
 - 1.3 "Sofia" ("София")
 - 1.4 "All" ("Всички")
2. User is allowed to choose "Floor type" ("Настилка")
 - 2.1 "Clay" ("Клей")
 - 2.2 "Hard" ("Хард")
 - 2.3 "Grass" ("Трева")
 - 2.4 "All" ("Всички")
3. User is allowed to choose "Type court" ("Тип корт")
 - 3.1 "Opened" ("Открит")
 - 3.2 "Closed" ("Закрит")
 - 3.3 "All" ("Всички")
4. User is allowed to choose "Coaches" ("Треньори")
 - 4.1 "Yes" ("Да")
 - 4.2 "No" ("Не")
 - 4.3 "All" ("Всички")

5. User is allowed to make a reservation by "Container boxes"

5.1 User is allowed to "Book now"/"Резервирай"

5.1.1 User is allowed to declare date

5.1.1.1 Refer User to "Create an account" section

5.1.2 User is allowed to choose "Floor type"/Настилка

5.1.3 User is allowed to choose "Court type"/Корт

5.2 User is allowed to view "More details"/"Детайли"

5.3 User books thru the "Book" button/бутона "Резервирай"

Functional Description: Use case related to Players

Functional Description: Use cases related to News & About Us

Use Case №1: "News"/"Новини"

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User goes to "News" button ("Новини")
 - 1.1 User views information about "Click&Play" events and updates

Use Case №1: "About us"/"За нас"

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. User goes to "About us" button located on the top right corner on "Dashboard"
 - 1.1 Information about the creation, goals and partnerships of "Click&Play" is presented to user

Functional Description: Use case related to Contacts

Use Case №1: Contacts (“Контакти”)

Primary Actor: User

Pre Condition: Installed browser and active internet connection

Main scenario:

1. Contacts info

1.1 Displays the residence of Click&Play

1.2 Displays the phone number of Click&Play

1.3 Allows user to go to the displayed office e-mail address of Click&Play

1.3.1 Autocomplete the “E-mail” box with Click&Play office e-mail address

1.3.2 User writes “Subject”, “Message” and his “Name”

1.3.3 User sends the “Message” with “Send” button/“Изпрати”

1.4 Allows user to go the displayed feedback e-mail address of Click&Play

1.4.1 Autocomplete the “E-mail” box with Click&Play feedback e-mail address

1.4.2 User writes “Subject”, “Message” and his “Name”

1.4.3 User sends the “Message” with “Send” button/“Изпрати”

2. Get in touch/Свържете се с нас

2.1 User writes his “Name”/“Име”

2.2 User writes Click&Play e-mail address

2.3 User writes “Subject”/Заглавие”

2.4 User writes a “Message”/“Съобщение”

2.5 User sends the “Message” with “Send” button/“Изпрати”

Functional Description: Use case related to Become Partner

User Screens

on several consecutive slides

1.1 Reliability

Reliability is an important factor for C & P to be trustable, sought for and useful. Here are some issues to be considered:

1.1.1 Availability:

C & P should be available 24 hours per day, 7 days per week. Maintenance access period is a month. Database is backed up.

1.1.2 Mean Time Between Failures (MTBF):

3 month.

1.1.3 Mean Time to Repair (MTTR):

2 hours

1.1.4 Maximum Bugs or Defect Rate:

Less than 1 minor bug per 1000 lines of code.

1.1.5 Bugs or Defect Rate:

No critical bug that causes data loss or system crash is allowed.

1.2 Performance

1.2.1 The information retrieval should be as fast as possible for customer satisfaction.

Both the business clients and the end users should be able to access a page in 0.001 second with a 33.6 Kbps modem. The booking submission should not take more than ... to be processed and confirmed.

1.2.2 The server should be able to serve 25 percent of registered customers

The server should be able to serve 25 percent of registered customers simultaneously, which may be about several thousand for a medium scaled electronic enterprise.

1.2.3 Separation of connection handling and data processing

Separation of connection handling and data processing would definitely improve the overall system performance as well as cost incurred.

1.2.4 Software runs on an online platform

Programming should also aim at quick data retrieval

1.2.5 Minimize the data transfer time

The size of data sent to the user can be limited to an upper bound, especially for the multimedia files, to minimize the data transfer time.

1.2.6 Size of the secondary storage

The larger the primary memory, the faster the applications would run. Moreover the size of the secondary storage should be sufficient for data swapping, recovery and backup procedures.

1.3 Supportability

1.3.1 Compatible with Operating Systems

- Windows
- Linux
- OS X

1.3.2 Compatible with Browsers

- Microsoft Internet Explorer
- Mozilla Firefox
- Google Chrome
- Opera
- Safari

1.4 On-line User Documentation and Help System Requirements

1.4.1 For the business clients

1.4.1.1 Online Help

C & P is a fairly easy-to-use, intuitive system, that needs little to no training to start being used. Nevertheless, our business clients will receive an initial introduction to the numerous possibilities the platform provides them with.

They will also can rely on the 24/7 technical support the web provider delivers at subscription.

1.4.2 For the end user

Taking into consideration the system's easy-to-use, intuitive interface, the end user should not need any kind of training to work with. As for any issues related to server issues, the web provider will be taking care of these.

1.5 Licensing Requirements

CRM will be sold with fewer than two licenses policies. Evaluation Use License, which will give a fully functional trial copy for 30 days after which to use the product, it has to be upgraded to a Production Use License. Each copy sold is for installation with one application server. The number of users that can connect to CRM is unlimited. Purchase of an Annual Maintenance and Support contract after the first year of installation is needed to continue getting services such as

- Software upgrades and product enhancements upon their commercial release, and appropriate documentation, and
- Technical assistance with respect to the Software, including
 - Clarification of functions and features;
 - Clarification of documentation;
 - Technical support and guidance in the operation of the Software; and
 - Software error analysis and correction.