

Non-Functional requirements (Mobile)



This document presents the list of standard test environments. Specific test environments for the project should be discussed and approved by the client at the start of the project. Test environments are defined based on the market, target audience, and project specifics.

iOS Devices for testing:

Device	iOS	Screen Resolution
iPhone 6	iOS 12	1334×750
iPhone 6s plus	iOS 13	1920 x 1080
iPhone 7	iOS 12	1334 x 750
iPhone X	iOS 13	2436 x 1125
iPhone XR	iOS 13	1792 x 828
iPhone XS max	iOS 13	2688 x 1242
iPhone 11	iOS 14	1792 × 828

Supported iOS devices: This Mobile application can be installed on devices with **iOS 12-14**.
The Mobile Application may have device-specific issues on devices that were not included in the list of tested devices.

Android Devices for testing:

Device	Android	Screen Resolution
Samsung Galaxy S5	Android 6	1920x1080
Samsung Galaxy S7	Android 7	2560x1440
Samsung Galaxy S8 Plus	Android 8	2220x1080
Samsung Galaxy S9	Android 9	2960x1440
Google Pixel 3	Android 10	2160x1080
Samsung Galaxy S20	Android 11	3200x1440

Supported Android Devices: This Mobile application can be installed on devices with **Android OS from 6 to 11**.
The Mobile application may contain have device-specific issues on devices that were not included in the list of tested devices.

Note: functional testing will be performed only on the devices stated above.

Types of testing:

1. Types of testing will be described in the test strategy (must be agreed with the client, developers, and QA).

Localization:

1. Localization files will be provided by the client.
2. Required Languages:

- English



Localization requirements should describe things that need to be taken into account regarding language changes, such as national standards and metrics, text directions, and etc. Also, a source of translations for texts, videos, images and audio which must be localized should be included.

- availability and provision of translation;
- interaction of the translation with the interface;
- comparability to regional standards (phone number formats, emails, etc.);
- interaction with possible user languages.

Security

1. Only authorized users have access to Special functions of Mobile App:

- User roles - available functionality



Additional Security requirements must be agreed with the client, developers, and QA:

- Company Admin is responsible for Mobile App content which is generated via the admin panel;
- Super Admin (MobiDev representative) users are able to fully control the whole system including other companies Admins.
- Data Storage security
- Encryption

Usability

- An error handling flow should be applied for negative scenarios;
- Error messages and help messages have a different design, which is distinguishable from each other.
- Design of the application should correspond to the client's company brand look (if required);
- the design corresponds to guides from Apple and Google.



Usability can describe (if needed due to the project specifics):


1. Compliance with Web Content Accessibility Guidelines (WCAG)
2. Changing font sizes are supported by the application (depends on the target audience).
3. How fast is it for users to complete the main actions once they see the interface?
 - *Users should have usage instruction for each key business flow.*
4. How quickly users can reach their goals?
 - *It is possible to create a new task from the main dashboard in less than 5 clicks;*
5. Can users return to the interface after some time and start efficiently working with it right away?
6. How often do users make mistakes?
 - *The error rate of users submitting their payment details at the checkout page mustn't exceed 10 percent.*
7. Is the design pleasant to use?

Keeping that in mind, you must make these requirements measurable.

Availability

1. The app should be usable in offline mode except for login and sync processes which require Internet connection;


2. Mobile App content could be updated within the admin panel.
3. Mobile App must be available for download from Google Play and App Store

 Additional Availability requirements must be agreed with the client, developers:

- The system may be available 98 percent of the time during a month.
- The system may be available from Mon to Fri in a time range (1 p.m. - 22 p.m.)
- The part of the system may be available from Mon to Fri in a time range (1 p.m. - 22 p.m.)

Performance

- While the device is getting information from the server, updating/loading screens' information or data, a spinner or any other visual sign should be displayed so the user understands that a certain action is being performed;


 Performance requirements must be agreed with the client, developers, and QA:

- The first app launch should take no longer than 2 seconds;
- The app should be responsive with a reaction on the tap less than 300 ms;
- Maximum response time 3sec;
- Average response time 1 sec;
- Battery Time while using an app;
- maximum/average simultaneous users;
- total number of users;
- Average throughput and the peak number of concurrent active users per device and OS;
- maximum/average actions per time (orders, pays, etc.);

Performance requirements should be added if it has an influence on the main business flow. For example:

- 1) quiz (quick questions answering is the main part of business logic).
- 2) aggressive marketing and SEO promotion are planned as a killer feature. (performance one of the important things for perfect SEO).

Reliability

 Reliability requirements must be agreed with the client, developers, and QA:

- The application should not crash in case of a call, application hiding (application going to background), issues with an Internet connection, transfer from wi-fi to mobile Internet, etc.
- Probability percentage, time; (Defined as the probability of a system or system element performing its intended function under stated conditions without failure for a given period of time)
- The number of critical failures, time;
- Mean time between failures;
- Data safety in negative cases;


Expandability and flexibility

 Expandability and flexibility must be agreed with the client, developers, and QA. The requirements can describe (if needed due to the project specifics):

- Mobile App should be Expandable for a growing:
 - number of users;
 - maximum/average simultaneous users;
 - number of specified entities (products, items, orders, requests, etc.);
 - add a new location (localization growth);
- Mobile App should be flexible for further converting (integration) into another project.

Legal and Regulatory Requirements


- Terms of Service and Privacy Policy must be available for the users;
- Users shall be notified of Terms of Service and Privacy Policy changes if any;
- None GDPR compatibility is required;
- Constraint regulations can be applied based on local law enforcement per area;

 Legal and Regulatory Requirements should describe (if needed due to the project specifics):

- PCI DSS compatibility;
- HIPAA compatibility;
- Compatibility with any other local/domain law.
- Compliance with software security standards:
 - NIST
 - MISRA-C

It must be agreed with the client developers and QA.

Accuracy

 Requirements for accurate must be agreed with the client, developers, and QA. The requirements can describe (if needed due to the project specifics):

- Location accuracy;
- Barometer accuracy;
- Pedometer accuracy, etc.

Third-Party Services

 Third-Party Services should list (if needed due to the project specifics):

- Payment systems;
- Integrated video/audio/ streaming services;
- Third-Party devices and its software;
- Single sign-on;
- chats;
- etc.

It must be agreed with the client and developers.

