



# Tips to Approach Mobile Testing (a checklist)

Everything you need to trigger thoughts, discussions  
and actions in the mobile projects you are working on



There's no denying that the software industry is going mobile. Increased complexity and higher consumer expectations are challenging for even the most experienced testers. The Ministry of Testing and SmartBear communities have compiled a checklist to use as a guide when testing mobile applications.



## Setting Up a Mobile Test Lab

- What mobile devices will you use to test?
- What devices are officially supported?
  - Make a decision based on user statistics
- How will you source the devices?
- When will you use an emulator or a real device?
- What software will be maintained on the mobile devices?
- How will the devices be managed and stored?
- How can you be effective with the device power consumption? Do the devices really need to be charging all the time?
- How will you load apps onto multiple devices?
- Is there a need for a booking system for test devices?
- How will you label devices with useful information? (OS, screen resolution, pixel density)
- Can you use a background image to communicate information to the user of the device? For example, device information or a reminder of guidelines.

# What Makes a Mobile App or Website...

## Accessible?

- Does audio and voiceover function and make sense?
- Can you zoom in and out effectively?
- Does the app accommodate all sizes of text?
- Does the full list of touch device options work?
- How large can on-screen buttons and navigation be?
- Is there voice activation or control?
- Is color contrast at a sufficient accessible level?
- Is it worth considering audible, visible and vibrating alerts?
- How does the app look inverted in colors? For example, white on black.
- Have you explored the accessibility features of the app and mobile device you are using?
- What types of gesture controls are available?

## Social?

- Can you register as a user via the app?
- Can you login via the app?
- Do you remain logged in when the app is not in use? If not, how does that affect the user experience?
- Does the app or website support social authentication methods?
- How easy is it to share media content, links, or files as well as comments and notes?
- How easy is it to disconnect updates and communications via the app?
- Can notifications be switched off or changed?

## Secure?

- Can the app be decompiled?
- How secure is the connection to the cloud server, if used?
- Can the data in transit be intercepted and decoded?
- Is any data or temporary data that the app uses stored securely on the device?
- Is all app data removed when the app is uninstalled?
- Is the app obfuscated using ProGuard/DexGuard (Android only)
- Does the app authenticate? How?
- After an update, is my data still safe?
- Should the user automatically log out after a period of time?
- Can security be changed from other devices or websites?
- What happens if the user gets locked out?

# What About...

## The Product – What Are The Basics?

- Can I download the app?
- Can I download an update?
- Can I update the app when there are multiple updates available? What happens if I don't update?
- What happens when the OS is updated?
- With what systems should it be compatible? For example, OS, platforms and browsers.
- Can I uninstall the app?
- Can I re-install the app?
- Can I downgrade? Should I be able to downgrade?

## Functional Testing – What Does It Do?

- Does the app perform the designed tasks?
- Does the app perform non-designed tasks?
- Is prevention of actions adequate?
- Does the app ask me to turn on services? For example, location specific, Wi-Fi, and social media.
- Is the user redirected? If so, where? From app to Web or visa versa? What do errors look like?
- Does the user interface (UI) and design work as intended? Is there room for misunderstanding or error?
- Is the UI appropriate for the form factor? For example, phone versus tablet, screen size, resolution, and existence of hardware buttons or keyboard.
- Does it comply with any standards, good practice and guidelines?
- Is the mobile app consistent with the desktop version, if it exists?

## Data – Testing What It Processes

- How does time apply to the app? For example, phone time and server time? What about time zones?
- What does it track and update? For example, reward points, friends, purchases, check-ins, social updates and user activity.
- Does it sync and update?
- What happens when it can't sync or update because the device is...
  - Offline
  - Connected but with no Internet connectivity (Have Wi-Fi connection to router, but Internet connection is down)
  - Connecting through a paywall and haven't yet authenticated (Wi-Fi in Starbucks, an airport, or a local pub)
  - Disconnected because Web filtering rejected the request
- Is there consistency between Web and mobile?
- What clues can analytics provide?
- How are things like user details and data saved?
- What about data input and output? What type of data is accepted? For example, locations, preferences, friends, contacts, languages, files, size, media and audio.

# What About...

## Platform – What Does It Depend On?

- Change the device settings around. What do you notice?
- What permissions does the app need?
- What tablet device is being used? What version of hardware or software?
- Review app store submission requirements.
- Test content. For example, text size, content adjustment and responsive design.
- Test the UI and touchscreen gestures. For example, swipe, zoom, pinch, multi-touch, shake and orientation.
- Test peripherals. For example, keyboards, Mi-fi devices, BT peripherals, iBeacon, and syncing peripherals.
- Test Camera, if applicable. For example, taking photos, using stored photos and photo data.
- How does the app run when the device is locked?

## Operations – How Is It Used?

Be sure to test the app in a variety of situations, such as:

- Connectivity
- Moving about
- None
- Wi-Fi
- 3G
- 4G
- Intermittent
- Airplane mode
- NFC
- Through a proxy
- Testing under no, low and partial connectivity

## How Is Data Saved?

- Does the app write to the SD card?
- What happens if the SD card is full? What happens if it is removed?
- Is data saved online (in the cloud)?
- If the data is saved online, can it be retrieved after reinstalling the app, or will it be available on the app on a different device with the same user account?
- If the cloud is used, how does lack of connectivity affect the user experience?
- Is the data saved securely? (See “Security” section)
- What if data is lost? Are there backups?

## Interruptions

Mobile users are always being interrupted. How does your app handle...

- Phone calls
- Text messages
- App notifications
- Battery Warning
- Forced updates
- Voicemail
- Switching between apps
- Locking and unlocking the screen
- Music playing while using the app
- MAM/MDM solution running on the device
- Out of memory (general performance interruptions)
- Data app interruptions (WhatsApp, Viber, Tango)
- Audio interrupts from multiple sources (iPod, Media player, Other audio apps)

## Customer Feedback

- What are people saying about it?
- App reviews
- App ratings / comments
- Comments, forum posts and articles on the (social) web
- Complaints and support requests

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