Prepared questions

Basic Questions on FIC issues

- Have you ever encountered FIC issues?

- Do you think it is important to **test FIC issues** before app release? What tools/techniques/testing methods (Lint?)
  - May add follow up questions according to the answer. (e.g.,pros and cons of existing tools, tool aids that can help revealing FIC issues)

- Introduce FIC issues **root cause** we found:
  - Device-specific
    - Driver implementation, OS customization (include implementation inconsistency), Hardware composition
  - Non-device-specific
    - API evolution, Android system bugs
  - More cases?

- What **symptoms** have you observed for the encountered FIC issues?
  - Functional, Performance ,Usability

- How do you solve FIC issues? What actionable advice do you need? (Full call trace? Partial call trace?)

- What **difficulties** did you encounter when debugging and fixing FIC issues?
  - Large search space (combination of API level, device model, etc.)
  - Difficulty in reproducing the hardware/software environment
  - Difficulty in generating test cases
  - Difficulty in locating the root causes

Questions related to API-context pair models

- Introduce **API-context pair model**
  - FIC issues are usually caused by invocation of misbehaving API on certain context (Device model, API level)
  - Is this **consistent** with your experience?

- Do you **fix** FIC issues **with API-context pairs**? (e.g., checking device model before invoking certain API, or pass different arguments according to the running environment)

- Do you find certain types of **API are more likely to cause FIC issues**? (e.g., driver or sensor related APIs: camera, location, proximity sensor, etc.) Do you have any experience with FIC issues of these APIs? Will you take **more efforts** to test these APIs?