**POC of Mobile Automation tool:**

**Define automation requirements:**

1. **Type of Application:**

**Native Application:**

Native application is an application which is designed using SDK libraries. These applications we install using .apk on android and .ipa on IOS.

Example: WhatsApp,Messaging app,calling app on Android or IOS device.

**Web Application:**

Web application is a web site we open inside browser on Android/IOS mobile devices. E.g. google page running inside chrome browser on Android.

**Hybrid Application:**

It is an application having combination of Native as well as web controls. For example Ola application.

1. **License:**

**Licensed Tools:**

1. **Subscription-based licensing:**

In this type of tool we need to renew tool license every year by paying subscription fees.

Example: SeeTest tool

1. **Perpetual licensing:**

In this type of a tool we need to pay license cost only once while buying a tool. After that we only need to pay for AMC(Annual Maintenance Contract). For example EggPlant,TestComplete.

Perpetual has following 2 types:

1. **Node-Locked License:**

A license bought for a particular machine(hardware) can only be used on that.

1. **Floating License:**

In this a license server running in premise will monitor how many tool instances are in use at a given point of time.

**Free Tools:**

Free tools are tools which do not charge for license fees. Example Appium

**Scripting Language:**

Which scripting language we want to write our tests in.

**i)Custom Language tools:**

These tools support scripting in a language created to be used with this. For example EggPlant which supports scripting using language called **“SenseTalk”.**

**ii)General Purpose Language Tools:**

These tools support scripting in general purpose languages like Java,C#,Python etc. Example of such tools: Appium

**Mobile Platforms:**

Which platform application we want to automate.Android/IOS/Windows Mobiles

**Object identification Techniques:**

1. **Image-based identification:**

UI elements are identified using image on an UI element. This technique is not reliable as small change in display of a control may result into ui element identification failure.

1. **Object-based Identification:**

UI elements are identified using unique properties like class, id etc.

Most of the tools available currently support both types.

**Hardware/Software Requirements:**

This requirement is very important to choose a correct tool. Free tools like Appium does not charge any license cost but we need to invest in hardware(MAC machine) to setup Appium for automating IOS applications.

**User-Community:**

For free tools user community should be good. License tools have 24\*7 support team to resolve issues of automation testers. This is a community platform for Appium [**https://discuss.appium.io/**](https://discuss.appium.io/)

**Support from tool developers:**

Tool should evolve itself to support new versions of mobile operating systems. Also developers should actively fix bugs found in tool.