# Question and Answers

**Q: What do you mean by configurability from database? Can you take an example? How can SQL help you?**

Configurability is a way of customizing UI for any application. For example, in a healthcare application, on one of the pages, one customer would provide two options – option A, and option B for a particular question, while other customer would provide 3 options – option D, option C, and option A. These options could be represented by check boxes, so number of UI objects and their properties on the first customer's page would be different than that of the second customer. This information could be stored in the database as "custId=1, pageId=6, objectId=checkBox1, value=A, seqNo=12", "custId=1, pageId=6, objectId=checkBox2, value=B, seqNo=13", "custId=2, pageId=6, objectId=checkBox1, value=D, seqNo=12", "custId=2, pageId=6, objectId=checkBox2, value=C, seqNo=13", "custId=2, pageId=6, objectId=checkBox3, value=A and seqNo=14". Now, we can write queries for a specific customer Id, for page Ids related to the particular feature to get list of all the objects, their properties, and sequence number.

**Q: It was mentioned that we collect the data sets, but after customization lot of fields get changed and hence data for those, then how does the solution proceeds further?**

The customization information is extracted every time we want to execute the automation suite (say once every week). So, if many fields are changed, they would also be reflected in the customization information, we collect. One clarification– when I say customization information, it is not the information about customized fields. It contains all the information of all the objects, including customized fields. So any change in the UI objects would be captured, and it would generate the scripts to take care of the actions associated with these objects, and also the data file template which has the field names as per the latest changes made in the object list of every page.

**Q. What is the future of automation engineers if Automation for Test Automation is in place in all organizations? Then there is no need of SDET or Automation Engineers for QA team?**

Your fear is not true! In last 20+ years, automation hasn't taken out anybody's job, in fact it had created more. The benefit of automation is to improve the efficiency, productivity, and minimize error. Today, we know that the amount of time available for testing is extremely less, and the testing scope has increased tenfold because of support to numerous platforms– OS, browsers and devices. Also, we can never achieve 100% automation, so some set of test cases has to be executed manually. So, by automating automation process, we are just increasing test coverage and reducing defect leakages. We would still require automation engineers, to build, enhance and maintain frameworks, so the role of automation engineer may change but we cannot eliminate need of an automation engineer. He / she would be able to cover scenarios, devices and achieve the testing activities smartly.

**Q. How do we get object properties of the application if it is not from database?**

The object properties needn't be always stored in the database. We have to discuss with development team to know where that information is stored and how the application uses that to render the application. Once we get the source– xml or excel file and any other format, we could write simple parsing scripts to extract the information.

**Q. Would the DynaGen program have to be developed for every application?**

No. The DynaGen program depends on the type of framework you use for automation. So once the DynaGen program is built, it could be used for any application, as long as you use the same automation framework.

**Q. Is HIHAF available as a product?**

Yes. For our existing customers, where we are developing the application for them, we use it as an add-on service, while for customers, who just want to use the framework for their automation development, we provide them as annual license.

**Q. If my application is supported on Desktops as well as on mobile, would a single test suite work for both?**

If it is a web based application and uses responsive web design (RWD), then we could use the same scripts for Desktop and Mobile. Only the object repository has to be created separately for Desktop and Mobile (even it would be different for Android and iOS). If the screens and flows are some what different in Desktop and Mobile, then we need to create separate scripts for both, although, we can re-use part of the Desktop scripts. If Android and iOS have similar screen mock-ups, then we can have same set of scripts for iOS and Android but separate object directory.

**Q. How do you define the automation test-steps? Is this similar to Cucumber (English like statements)?**

Yes, they are English like statements <keyword> <Action> <Object Name> <Data Variable>.

**Q. How does the automation engineer make use of libraries / test setup in DynaGen?**

DynaGen does not use any libraries / test setup. The main job of DynaGen is to generate scripts, object repository and data templates based on the extracted information about every object. The automation framework (in our case HIHAF) takes care of all the libraries / test setup, through configuration file.

**Q. When DynaGen does not have access to XML or DB how it will generate the script?**

We have to get access to the database / xml, where the object information is stored. If you are only an independent testing services provider, then you need to talk to your client to get this access, and convince how it would help in testing the application more efficiently and in less time. If you do not get access, you won't be able to use this approach.

**Q. Is the HiHAF compatible with Test Management System like HP-ALM?**

We have not integrated it so far, howeverm, as ALM provides Open Test Architecture API that is a COM library to integrate results of automation of 3rd party tools (non – HP), we could integrate the results in ALM.

**Q. How this work for a normal application?**

It would work the same way whether it is customized application or normal (static) application. Only thing you need is, you should know where the objects information is stored– database / XML or any other format (unless it is embedded in the code itself).

**Q. When the objects are coming from the server side, how Dynagen extracts the obejcts info?**

The extraction of object information from the server (database) has to be performed on server itself, by executing appropriate queries. The result generated, could be saved as XLS files and further copied to your client machine, where you can execute the DynaGen program.

**Q. Can "Extract customization information" and its usage be explained again?**

The customization information is nothing but the object information for every customer. Typically, it would be stored in different tables of the database or set of XML files. Once we understand the database structure and where all the object information is stored, you can develop set of queries to extract this information for every page for every customer. Also, this is one time effort. If it is stored in XMLs, we need to write simple Perl / Python scripts, which can parse these XMLs and provide the object information.

**Harbinger Systems**

**Q. How its helpful in automating iOS using Appium? Do we not need to code if we use HIHAF code?**

Appium internally communicates with Selenium Webdriver, and passes on the commands from HIHAF, which are in turn passed on to the Selenium Webdriver to execute on iOS app. We do not have to write any code as such. The script would be in plain English.

**Q. Will you post the recording or presentation slides of this webinar?**

Yes, you can view the recording and presentation slides of the webinar by visiting this link: http://www.harbinger-systems.com/resources/webinar/automation-of-test-automation

If you have any further questions or would like more details about the webinar and our services or would like to get notified about our next webinar, please let us know at: hsinfo@harbingergroup.com

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