

GBT User Manual

Grey box testing (GBT) was developed so that the users working on the Pega applications having limited knowledge in Pega BPM platform could leverage the GBT tool in their testing efforts to test out the Pega Ruletypes developed for their applications.

About the tool:

GBT is developed using Maantic's existing Selenium automation framework. The tool takes input from a user prepared input sheet and then perform the automation testing for the Pega ruletypes. Currently GBT is used for validating the following Ruletypes in Pega:

- Activity
- Decision table
- SLA

Prerequisites:

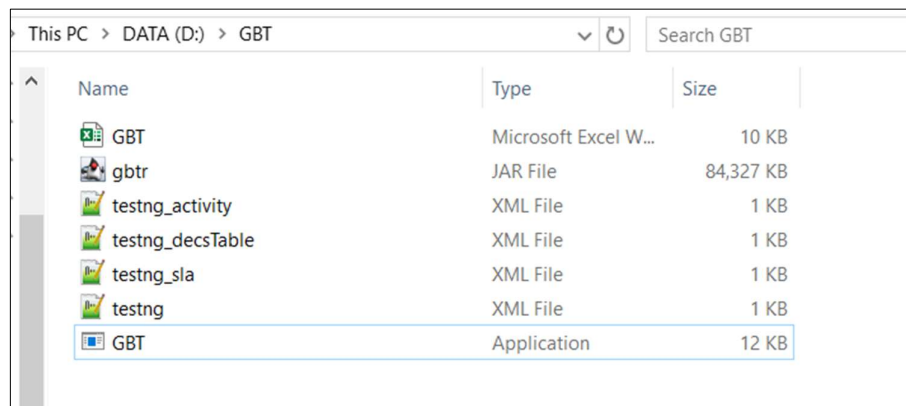
Currently developed for Pega 8.8 platform but with few tweaks it can be used for multiple versions.

Latest JRE should be present in the user's machine.

Setup/Installation

1. Create a directory named 'GBT' on your drive and download all the necessary files into it.

Downloaded Files: 'GBT.xlsx', 'gbtr.jar', 'testng_activity.xml', 'testng_decsTable.xml', 'testng_sla.xml', 'testng.xml' & 'GBT.exe'



- 1.a. Also create a result folder named "GBT-Output" inside the GBT folder.

- AutoSave (Off) GBT Search

File Home Insert Page Layout Formulas Data Review View Automate Help

Clipboard Font Alignment Number Styles Cells Editing Add-ins

Calibri 11 A⁺ B I U A⁺ Merge & Center General Conditional Formatting Format as Table Cell Styles Insert Delete Format AutoSum Fill Sort & Filter Find & Select Add-ins Analyze Data

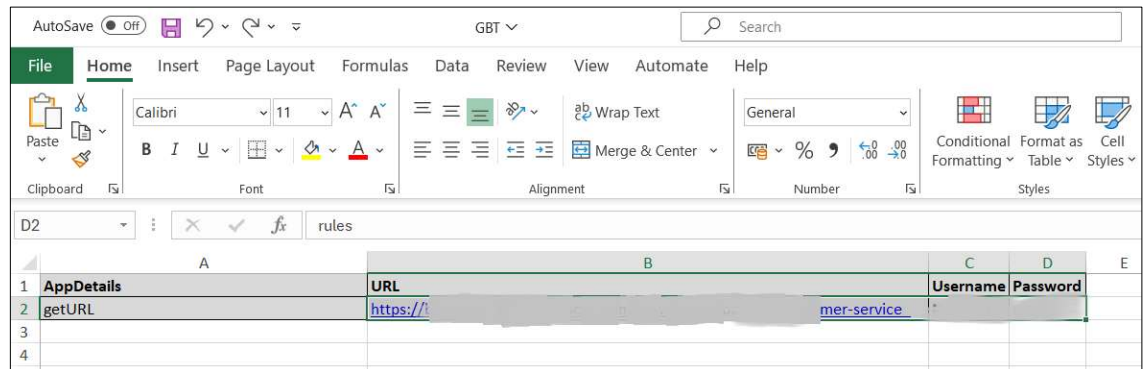
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	AppDetails	URL	Username	Password									
2	getURL												
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Login GBT

Ready Accessibility: Good to go

[illegible]

- Provide the application's Dev studio login credentials & URL in the fields under 'Login' sheet.

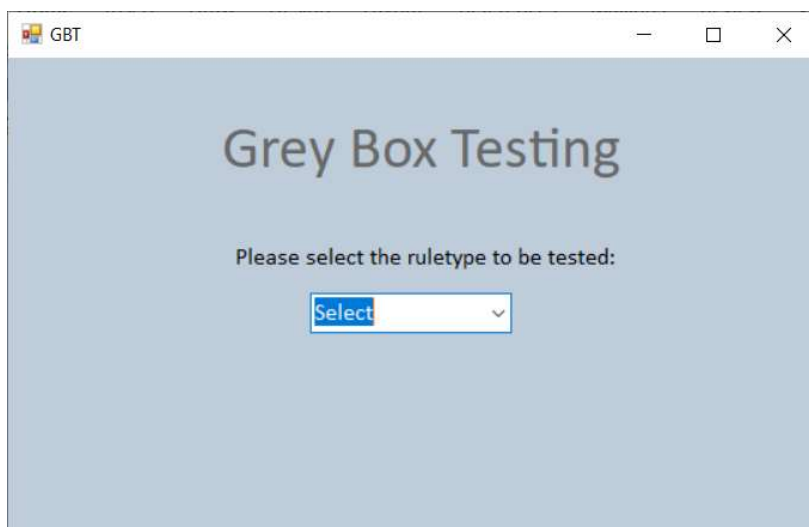


- Provide the details for 'Activity', 'Decision Table' & 'SLA' which are to be tested, under 'GBT' sheet.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	RuleType	ClassName	RuleName	RuleSetVersion	Param1	Param2	Param3	Param4	Param5	Param6	Param7	Param8	Param9	Param10	Param11	Param12	Expected	Actual	Pass/Fail
2	Decision_Table	PegaFS-Data-RelCodes	RelatedPartyEnforcedEntry	PegaFS-08-06-01	AFF												true		
3	Activity	PegaCA-Work-InteractCA	InitialSetup	PegaAppCA-08-05-01													Success		
4	SLA	PegaFS-Data-RelCodes	WorkPendingDate	BFSCS-01-01-01	0	0	0	0	0	0	0	0	0	0	0	0	true		
5	Decision_Table	PegaFS-Data-RelCodes	RelatedPartyEnforcedPairs	PegaFS-08-06-01	BRO												true		
6	SLA	PegaFS-Data-RelCodes	CheckListDueDate	BFSCS-01-01-01	0	0	0	0	0	0	0	0	0	0	0	0	true		
7	SLA	PegaFS-Data-RelCodes	DemographicUpdDate	BFSCS-01-01-01	0	1	0	0	0	0	0	0	0	0	0	0	true		

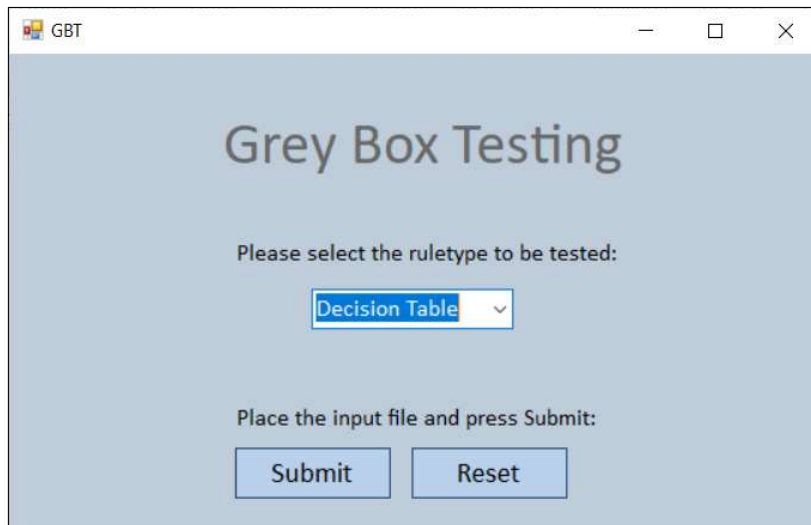
- Now run the 'GBT.exe' application.



5.a. Now from the dropdown, select the 'ruletype' which is to be tested. (Below we are choosing 'Decision Table' only.)

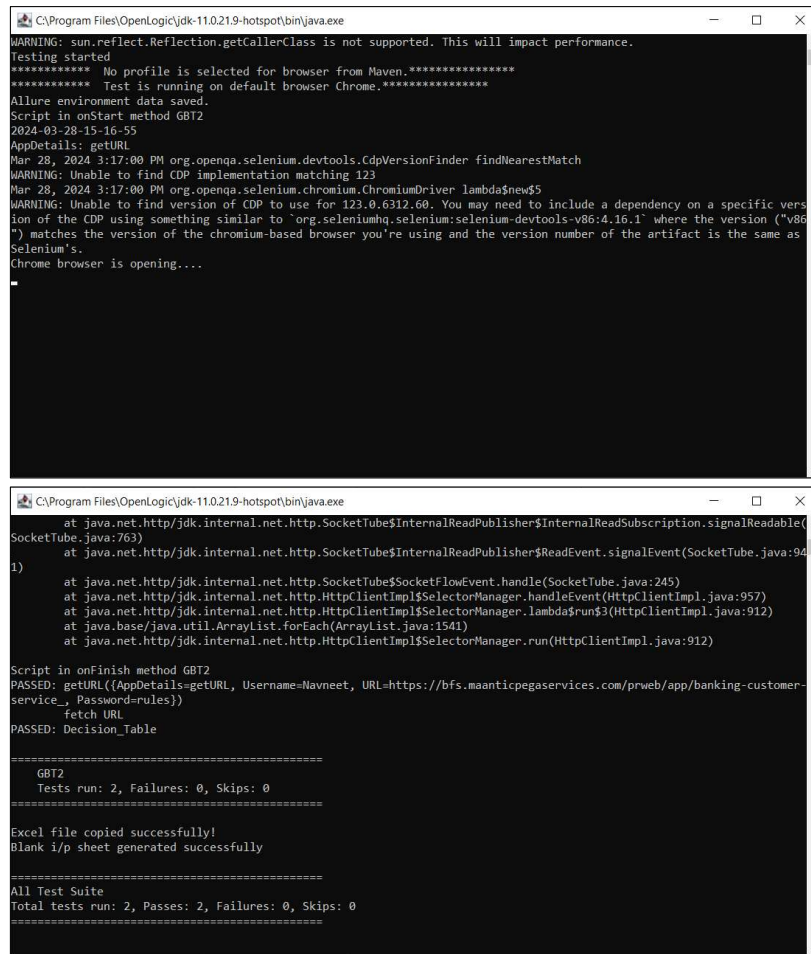


The screenshot shows a window titled 'GBT' with a light blue background. The title bar includes standard Windows window controls (minimize, maximize, close). The main content area has the text 'Grey Box Testing' in a large, dark font. Below this, it says 'Please select the ruletype to be tested:'. A dropdown menu is open, showing the current selection 'Select' and a list of options: 'Decision Table', 'Activity', 'SLA', and 'All'.



The screenshot shows the same 'GBT' window. The dropdown menu is now closed, and 'Decision Table' is selected and displayed in the dropdown box. Below the dropdown, the text 'Place the input file and press Submit:' is visible. At the bottom of the window, there are two buttons: 'Submit' and 'Reset'.

- Now click on 'Submit' and wait for the output report file to be generated.



```
WARNING: sun.reflect.Reflection.getCallerClass is not supported. This will impact performance.
Testing started
***** No profile is selected for browser from Maven.*****
***** Test is running on default browser Chrome.*****
Allure environment data saved.
Script in onStart method GBT2
2024-03-28-15-16-55
AppDetails: getURL
Mar 28, 2024 3:17:00 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
WARNING: Unable to find CDP implementation matching 123
Mar 28, 2024 3:17:00 PM org.openqa.selenium.chromium.ChromiumDriver lambda$new$5
WARNING: Unable to find version of CDP to use for 123.0.6312.60. You may need to include a dependency on a specific version of the CDP using something similar to 'org.seleniumhq.selenium:selenium-devtools-v86:4.16.1' where the version ('v86') matches the version of the chromium-based browser you're using and the version number of the artifact is the same as Selenium's.
Chrome browser is opening....

at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$InternalReadSubscription.signalReadable(SocketTube.java:763)
at java.net.http/jdk.internal.net.http.SocketTube$InternalReadPublisher$ReadEvent.signalEvent(SocketTube.java:941)
1)
at java.net.http/jdk.internal.net.http.SocketTube$SocketFlowEvent.handle(SocketTube.java:245)
at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.handleEvent(HttpClientImpl.java:957)
at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.lambda$run$3(HttpClientImpl.java:912)
at java.base/java.util.ArrayList.forEach(ArrayList.java:1541)
at java.net.http/jdk.internal.net.http.HttpClientImpl$SelectorManager.run(HttpClientImpl.java:912)

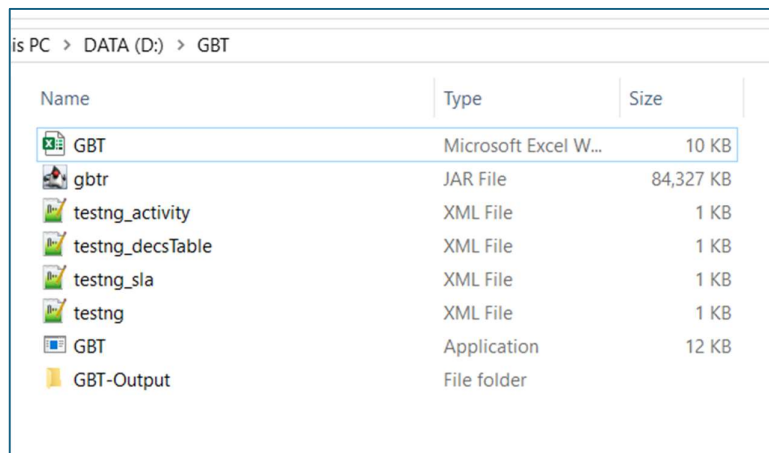
Script in onFinish method GBT2
PASSED: getURL({AppDetails=getURL, Username=Navneet, URL=https://bfs.maantipegaservices.com/prweb/app/banking-customer-service_, Password=rules})
fetch URL
PASSED: Decision_Table

=====
GBT2
Tests run: 2, Failures: 0, Skips: 0
=====


Excel file copied successfully!
Blank i/p sheet generated successfully

=====
All Test Suite
Total tests run: 2, Passes: 2, Failures: 0, Skips: 0
=====
```

- After a successful run, open the latest excel report file which is generated 'GBT_Results_xxxxx.xlsx' from the 'GBT-Output' folder location.



his PC > DATA (D:) > GBT > GBT-Output

Name	Type	Size
 GBT_Results_2024-08-22-10-54-19	Microsoft Excel W...	10 KB

AutoSave

GBT_Results_2024-03-28-15-1...

Saved to this PC

Search

Navneet Singh

FileHomeInsertPage LayoutFormulasDataReviewViewAutomateHelp

Clipboard

Paste

Calibri11

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Font

Wrap Text

Alignment

General

Number

Conditional Formatting

Format as Table

Cell Styles

Styles

Insert

Delete

Format

Cells

AutoSum

Fill

Clear

Editing

Sort & Filter

Find & Select

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Since we chose to run only 'Decision Table' ruletype, therefore the results for decision table are displayed in the 'Pass/Fail' column in the above image.

Similarly, by selecting different ruletype from the dropdown of the 'GBT.exe' application, we can perform different testing.