Lab 5-1

Lab – Familiarizing Yourself with Your Goals and the Web Site

In this beginning exercise, you'll preview how you find the data you're looking for by opening the site up in your browser and looking for the data you're interested in retrieving and how you get that data as a human. As you step through the web site, take notes.

1. Open your web browser. Navigate to http://class.kofax.com/hardyhardware.
2. Your goal is to extract five pieces of data from the first "Best Rated" item on the web page:
    a. Product Name
    b. Product Description
    c. Product Overview
    d. Product Picture
    e. Product Price

    Where do you get the details you want? You have to click the first item displayed on the right side of the web page labeled "Best Rated."
3. Click on the first item displayed which is a ceiling light. Now you see the details for that item. Note the location of the product's name, description, overview, picture and price. This is what we want to extract. Make notes about this.

Lab 5-2

Lab – Creating a Project

Now you're going to create a Kapow project that will contain Types, Robots, Snippets and Databases.

1. Make sure RoboServer is still running. On Windows systems, you'll see a  button on the taskbar. If it's not there, you will need to Start Management Console again.
2. In the Kapow program group, double-click on Design Studio to open it.
3. In the Projects panel on the left, right mouse-click on "Projects," and then click on "New Project."
4. In the displayed New Project dialog box, enter "HardyHardware" as project name. Place your project in a path called "C:\Kapow Projects\. Click on [Finish] and a new project is created.
5. For better organization, create five new folders under the HardyHardware project: "Robots," "Types," "Snippets," "Databases" and "Devices." You do this by right mouse-clicking on HardyHardware and selecting "New" and "Folder" for each. These folders make up the Library for your new project.

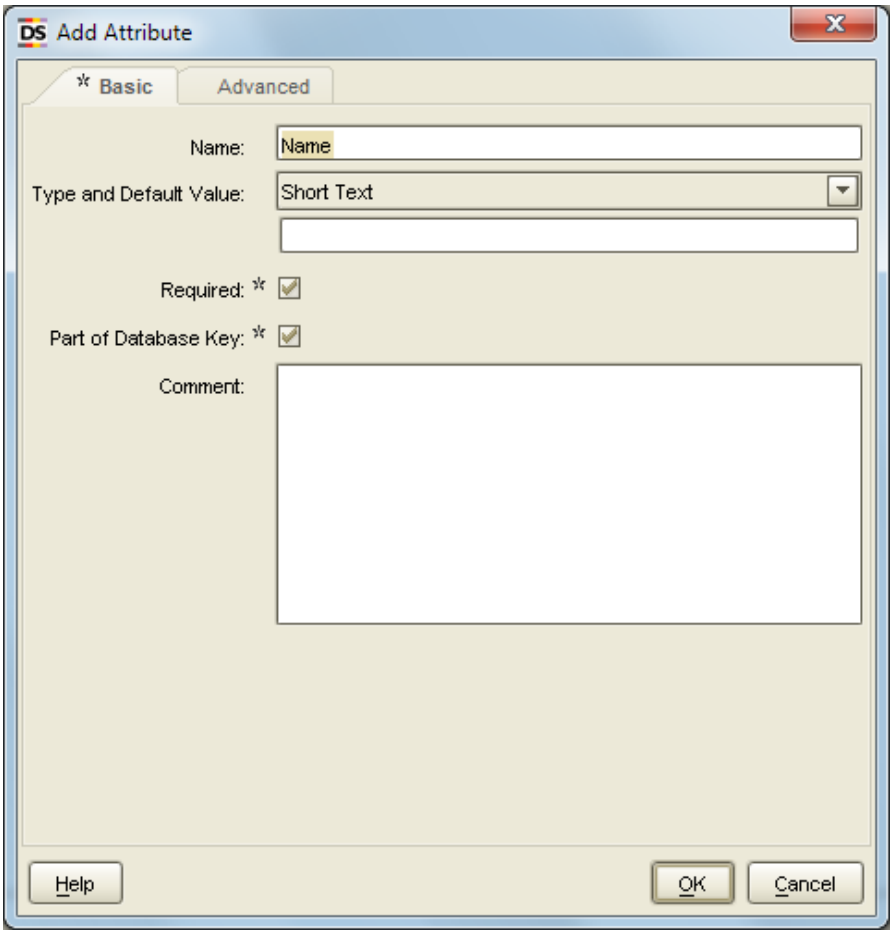
6. Right mouse-click on HardyHardware and select “Show in folder.” You will see the Library structure in Windows Explorer. A structure like this makes it quite easy to back up or move to another computer. Close Windows Explorer.

Lab 5-3

Lab – Creating a Type

You will create one Complex Type that will be used in your first Robot to contain the extracted values in a Variable.

1. In your HardyHardware project, right mouse-click on the Types folder and select “New” and “Type” from the context menu.
2. Name your Type “HardyHardware.” Then click on [Finish]. A HardyHardware.type file will be created.
3. The Type window will open to which you will add five new Attributes. To add each, click on the ✣ symbol. Complete the first attribute as shown below…



4. Click [OK] to save and close. Create the remaining four Attributes with the following properties (NOTE: Comments are optional):

Name	Type	Required	Part of Database Key
Description	Short Text	Yes	Yes
Overview	Long Text	No	No
Picture	Image	No	No
Price	Number	Yes	No

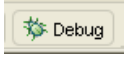
Lab 5-4
Lab – Your First Robot

Now you'll get to create your first Robot. It will be a simple one that opens the web page, selects the first "Best Rated" item and extracts and returns the values for the five values you just set up in the Type.

1. In the Projects panel, right mouse-click on the Robots folder in the HardyHardware project. From the context menu, select "New" and then "Robot."
2. Name the Robot "MyFirstRobot.robot." Click on [Next].
3. For the URL, enter "http://class.kofax.com/hardyhardware." This should be in the notes you recorded back in Lab 5-1. Select the Default browser engine and click on [Finish].

   A new tab is opened for your Robot in Design Studio. You'll notice a "Load Page" step has been automatically created for you as has and end step. The Robot is sitting on the end step which means the Load Page step has already been executed…and the web page is displayed below the Robot in the browser panel.
4. If you recall, the first thing you did as a human was to click on the picture of the best rated item to bring up its details. Let's set up the Click step now…

   You could click on the picture of the item – or the name of the product. Either would work. But for this lab, let's use the name: Left mouse-click on the item's name. You'll notice a green box is displayed around it.
5. Right mouse-click on the green box and select "Click" from the context menu. A new Click step is created and executed for you. You should be taken to the product's details page. Before you go on to the next step, left mouse-click back on the Click step in the robot view and examine the properties on the four tabs on the middle right panel in Design Studio: Basic, Finders, Action and Error Handing. On the Basic tab, change the Step Name to "Click Item." That's more generic. You'll see it change in the robot view above. You don't need to change anything else.
6. In the Robot, click on the small end step to the right of "Click Item" to give it focus. The web page displayed in the browser panel will show the product detail again because the Click Item step has been executed.

7. The next step will be to set up extraction of the details you want to get. But before you do that, you have to set up one or more Variables to contain the data. Go to the Variables panel (bottom right panel) in Design Studio and click on the + symbol to create a new Variable. You don't need to enter a name this time because In the absence of your providing a name, Design Studio will automatically use the Type name for the Variable.
8. Leave the Global and Input boxes unchecked as well.
9. From the "Select a Type" dropdown, select "HardyHardware." Click [OK], accept the name and a new Variable called HardyHardware is created for you. Notice that the Variables panel now displays a place for all five pieces of data you'll be extracting.
10. The first item you want to extract is the product name. Find it on the page (it's the bold title, just above the picture of the light). Left mouse-click on the title. The green box is displayed around the data. Then right mouse-click on the green box and select "Extract" then "Text" and finally "HardyHardware.Name" from the context menus. A new Extract Action step called "Extract Name" is created. If the end step has focus and extraction was successful, you should see the title displayed in the Names field in the Variables window.
11. Create similar extraction for the Description and for the Product Overview.
12. For the picture of the item, click on the image of the light, right mouse-click on the green box and select "Extract," then "Target" and then "HardyHardware.Picture." *NOTE: We've found that on this website, using the default browser engine, extract target works more reliably than extract image.*
13. For the price, two prices are displayed. The one you want is "Our price." For that one right mouse-click and use "Extract," "Number," and "HardyHardware.Price."
14. If you select the end step, you should see values extracted for all items in the Variables panel.
15. For testing in Debug mode, we need to add a "Return Value" step to see the values returned. Right mouse-click on the end step and select "Insert Step Before" and then "Action Step" from the context menus.
16. Select the new unnamed step and from its Action Tab dropdown, select "Return Value."
17. On the Design Studio main toolbar, click on the [Save All]  button.
18. To test in Debug mode, click on the Debug tab 

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19. Then click on the [Run]  button to run your robot.
20. Review the output results.
21. If you have any problems, do your best to troubleshoot and resolve them. If you make any changes since the last time you've saved, save again.