**Automated Product Price Monitoring – Process Flow**

**Dispatcher**

* Create the excel file that contains list of phone that are to be search.
* Create simple workflow that get the list of phones and add that list to queue on orchestrator.

**Performer**

* Get the queue item from the orchestrator
* Open Browser with Amazon Url and Flipkart Url : Handle any popup appeared
  + If Server is down or application is not responding
    - Send the mail to user reporting the issue
* Search the product on amazon
  + Throw an business exception if no product found on search
    - Send the mail to user reporting the issue
* Get all the products from that page with details
  + Product Url
  + Product Description
  + Product Original Price
  + Product Discount Price
  + Product Discount Percentage
* Handle the layout change (grid/list view) for the product details extraction
* For Each Data of Flipkart:
  + Get the RAM, Storage, And Colour
  + For Each Data of Amazon:
    - Find the match of the product item based on RAM, Colour, and Storage
    - Log the message if unable to extract the Ram, Colour and Storage
    - If Match found:
      * Calculate the price difference as :

Absolute (Amazon Price – Flipkart Price)

* + - * Calculate the percentage change as:

PriceDifference / Highest Price \* 100

* + - * Add all the details to Data table that includes
        + Amazon Product Url
        + Amazon Product Title
        + Amazon Product Original Price
        + Amazon Product Discount Price
        + Amazon Product Discount Percentage
        + Flipkart Product Url
        + Flipkart Product Title
        + Flipkart Product Original Price
        + Flipkart Product Discount Price
        + Flipkart Product Discount Percentage
        + Price difference
        + Percentage Change
      * If Price Difference is greater than zero than for the lowest price product item:
        + Fetch the product details:

Bank Offers

Partner Offers

Image (Download the image)

Catch the exception in case of unable to extract the offers or get the image

Send the mail to user reporting the issue

* + - * + Add the lowest price product item details and the above detail in excel file with sheet name as product title
      * Save the final low price products details excel file with different sheets to the single pdf.
      * Delete the Excel file created.
* Add the log message in case no match for the product item is found.
* Add the Data table to the Excel file creating the sheet for the searched product
* Mail the final excel file and the pdf reports for each product searched to user.
* If any exception occurred during the process
  + Take the screenshot
  + Send the mail to user reporting the issue
  + Delete the pdf or excel file created during the process of that product item.