Introduction:

Price tracker as the name implies allows you to track the price of any product from any online store. I say “Any”, but that is not entirely true. Out of 20 websites tested only one failed, and that website was Aliexpress.

The program was coded in android studio and utilized the JSOUP library for the web scraping.

Program procedure:

Once the user opens the application he will be met with only one option and that is the add option. Once he clicks on the add button a menu will pop up with 3 text fields:

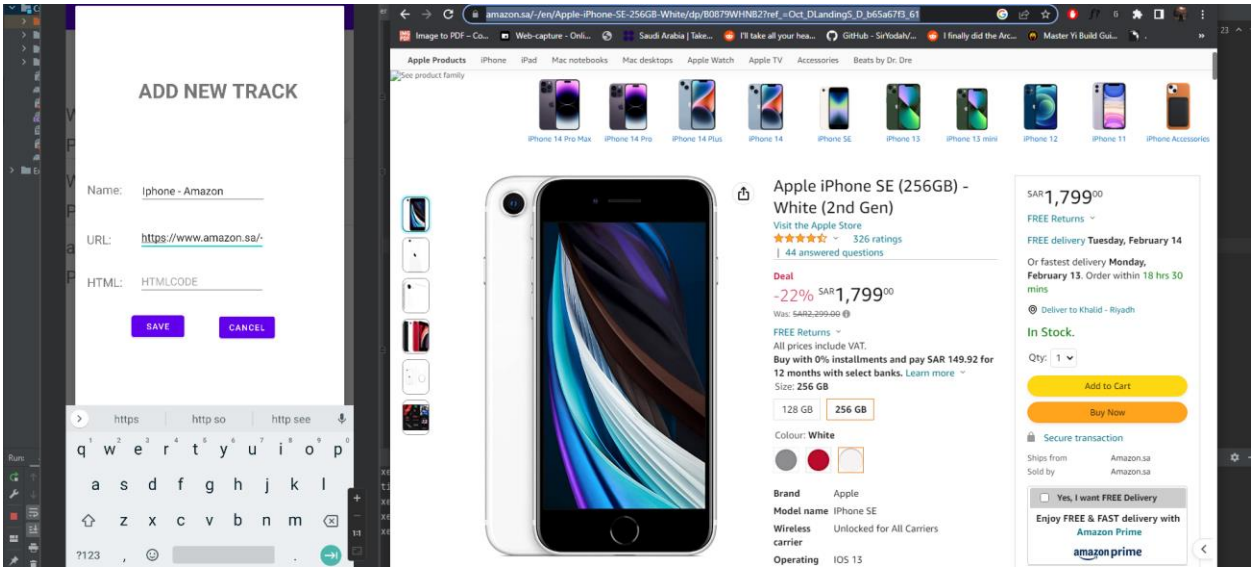
Name: Which is the name of the track

URL: The URL of the website where the desired product is hosted on

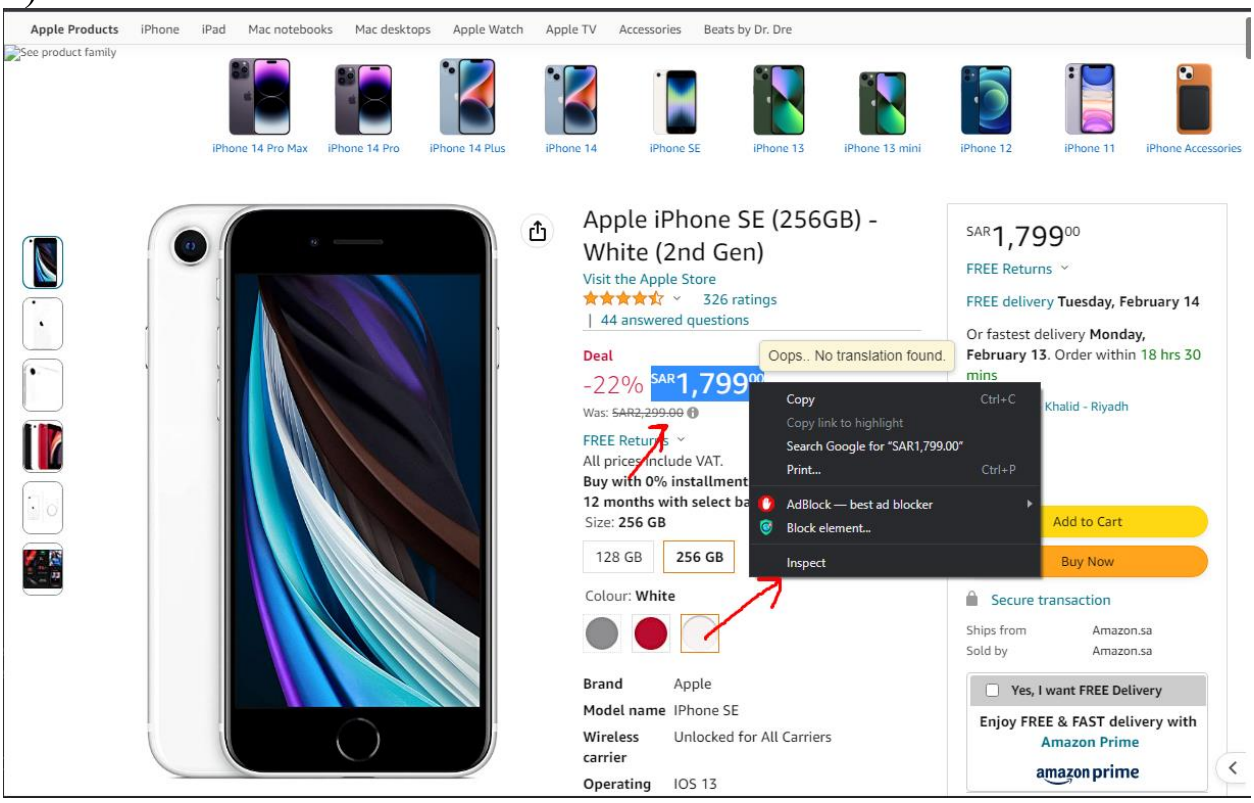
HTML: The name of the html class that belongs to the price attribute.

The last part might be a little confusing refer to the below image example:

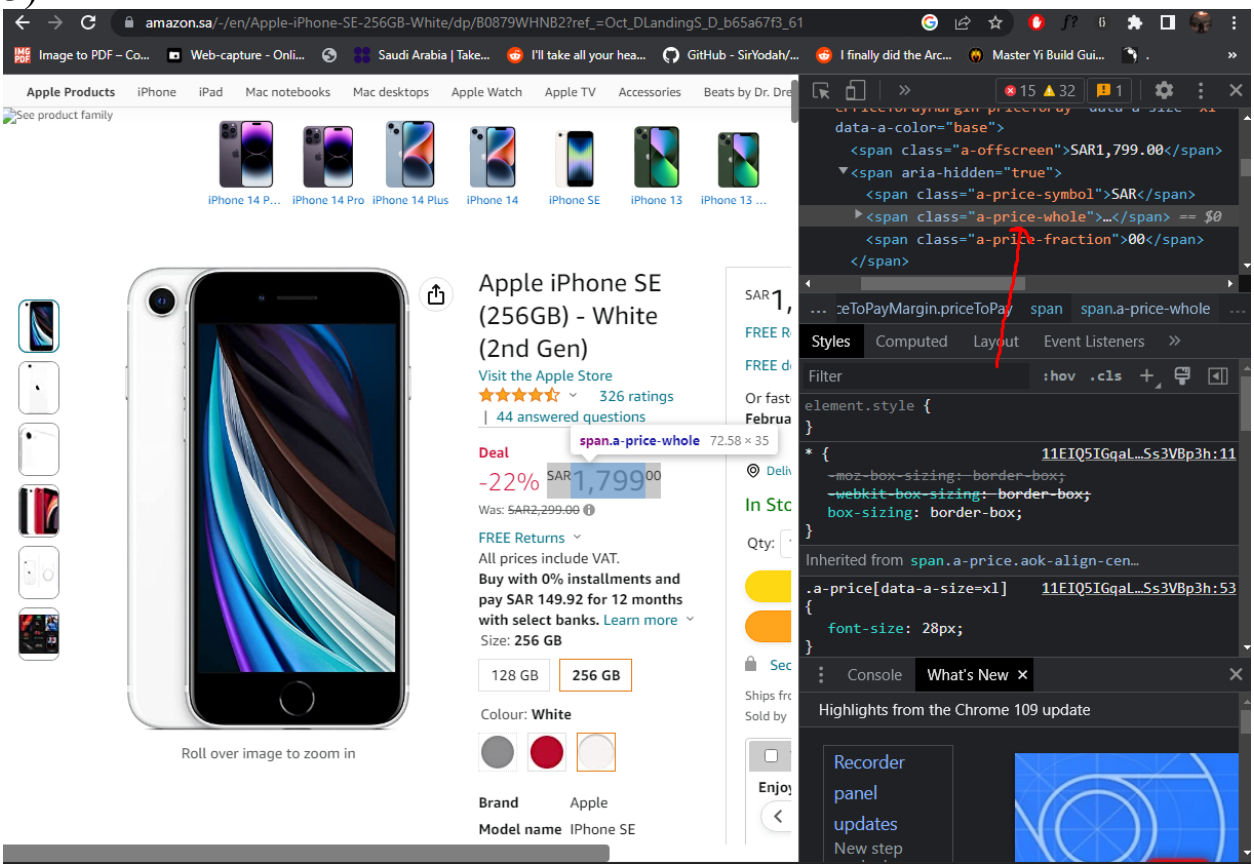
1)



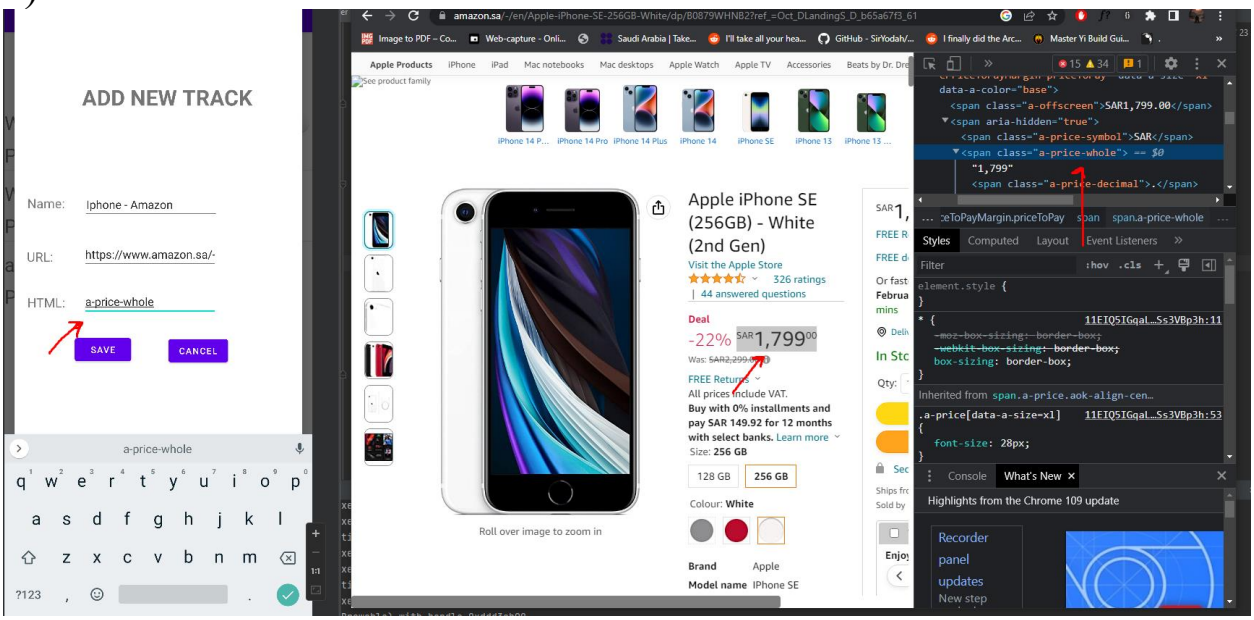
2)



3)

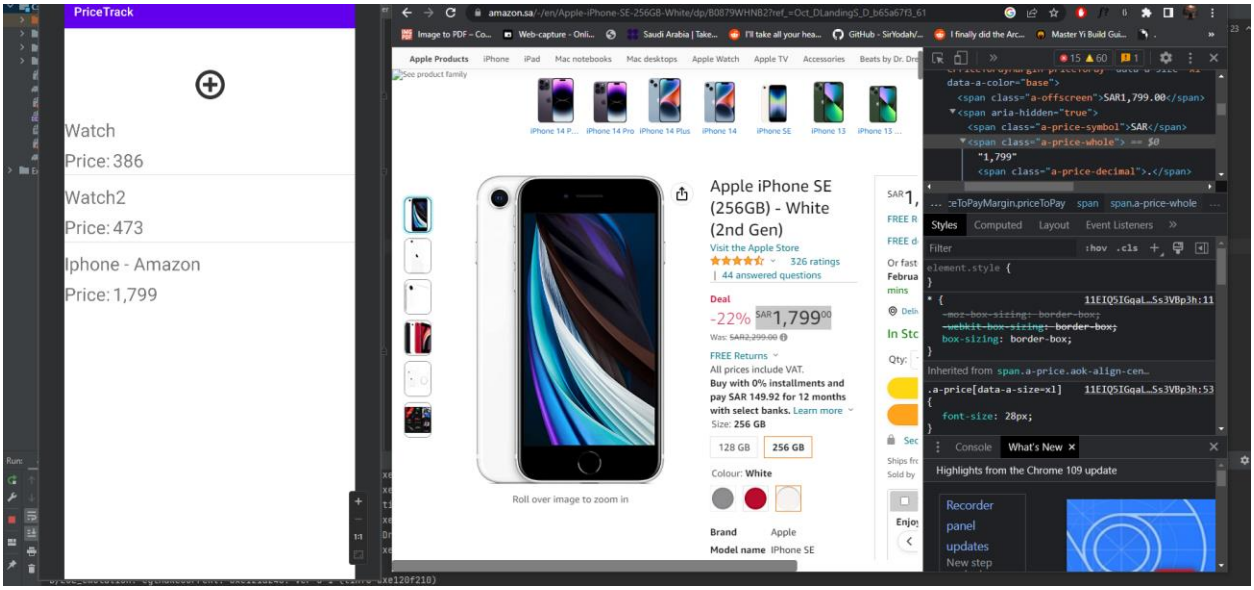

amazon.sa/-/en/Apple-iPhone-SE-256GB-White/dp/B0879WHNB2?ref_=Oct_DLandingS_D_b65a67f3_61
Apple Products
iPhone
iPad
Mac notebooks
Mac desktops
Apple Watch
Apple TV
Accessories
iPhone 14 P...
iPhone 14 Pro
iPhone 14 Plus
iPhone 14
iPhone SE
iPhone 13
Apple iPhone SE (256GB) - White (2nd Gen)
Visit the Apple Store
326 ratings
44 answered questions
Deal
-22%
SAR1,799.00
Was: SAR2,299.00
FREE Returns
All prices include VAT.
Buy with 0% installments and pay SAR 149.92 for 12 months with select banks. Learn more
Size: 256 GB
128 GB
256 GB
Colour: White
Brand Apple
Model name IPhone SE
Roll over image to zoom in
span.a-price-whole 72.58 × 35
data-a-color="base"
SAR1,799.00
aria-hidden="true"
a-price-symbol
a-price-whole
a-price-fraction
Styles
Computed
Layout
Event Listeners
element.style
box-sizing: border-box;
Inherited from span.a-price.aok-align-cen...
.a-price[data-a-size=xl]
font-size: 28px;
Console
What's New
Highlights from the Chrome 109 update
Recorder panel
updates
New step

4)

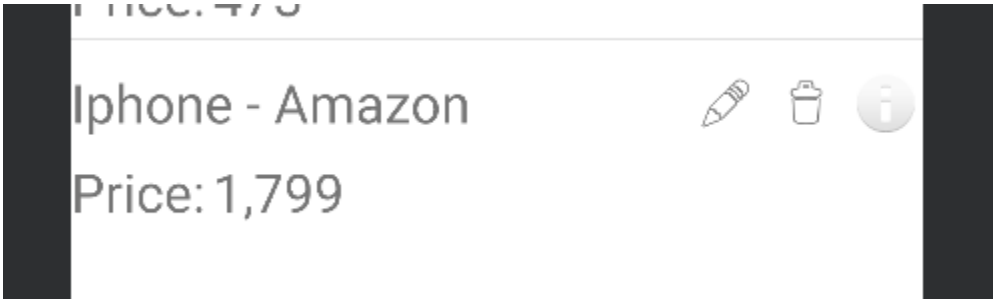

ADD NEW TRACK
Name: Iphone - Amazon
URL: https://www.amazon.sa/-
HTML: a-price-whole
SAVE
CANCEL
a-price-whole
Apple iPhone SE (256GB) - White (2nd Gen)
Roll over image to zoom in
"1,799"
a-price-decimal
Highlights from the Chrome 109 update

Now after completing the above steps and clicking the save button, the app will save all the information in a local SQLite database. It will then send that information to the JSOUP class and get the price by web scraping.

Example:



By clicking on the row any individual row you will get three options:



Option 1: Will allow you to edit the information added
Option 2: Will delete the track entirely
Option 3: will display the log which keeps track of any change made to the price.

PERIODIC CHECKING:

The program will check the price of all tracks added once every half an hour.(The emulator will do the check on startup) It will then do one of two things:

1 – If the price has changed it will **add that change to the log**, **update the price** and **Send a notification** indicating the change.

2- If the price has not changed it will do nothing.

This procedure will run even if the application is closed. The interval was set to half an hour to avoid unnecessary battery drainage.