CSCI 205 Final Project

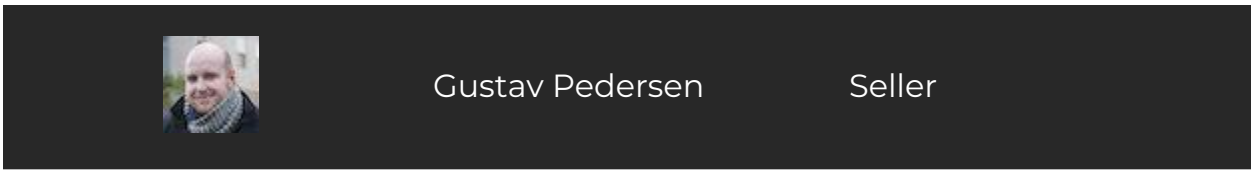
Team 02 - InspektahAPI

Design Manual

InspektahAPI accesses the Walmart API and shows results of API searches in JavaFX.

User stories

Seller



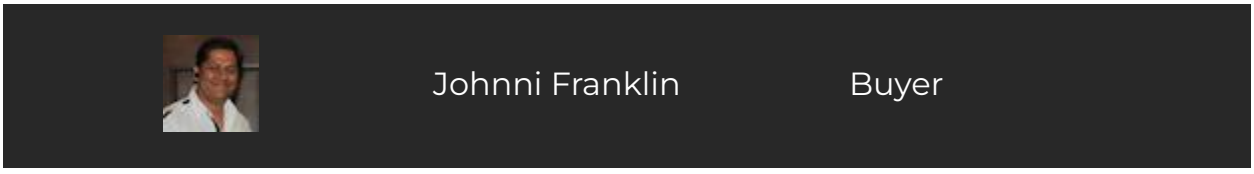
"Buy my goods!"

This user wants to sell their goods. They browse the market to find other prices to sell at, and determine a price that fits their item(s).

How would this user best benefit from using InspektahAPI?
Gustav could easily find a competitive price for his goods with InspektaAPI, then use those prices in Ebay or another third-party site. He can also find the newest items being sold on Walmart.com and, if he is a retailer, see what competitors are selling.

Limitations for this user:
Gustav cannot sell his goods directly on InspektaAPI

Buyer - cost



"I want to save money!"

This user wants to buy an item at the lowest possible price. They do not care when they receive the product, as long as they get the best possible price.

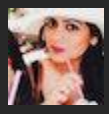
How would this user best benefit from using InspektahAPI?

Johnni would benefit most by using Inspekta API to filter by price to find the cheapest product to buy

Limitations for this user:

Johnni cannot buy items directly from InspektaAPI. He would have to use the Walmart site or another third party site to actually buy the items. He could use InspektahAPI to find the item at his local walmart and compare the price among other retailers.

Browser



Margot Paulus Browser

"I'm just bored and want to look at stuff"

This user has no intent of purchasing any items, they just want to browse the available marketplaces.

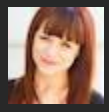
How would this user best benefit from using InspektahAPI?

Margot can search as many items as she wants to in Inspekta API and compare among prices and brands

Limitations for this user:

Margot is limited to searching Walmart.com

Data Analyst



Marina Martínez Data Analyst

"I do research on market fluctuations"

This user utilizes the platform to record and analyze market data over multiple market platforms.

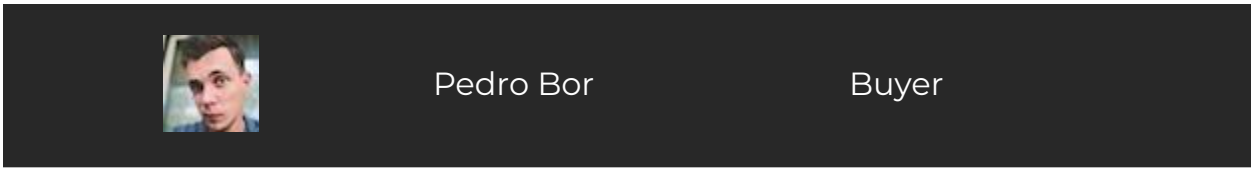
How would this user best benefit from using InspektahAPI?

Marina could easily use InspektaAPI results to put together a file of price changes over time. If she has access to the InspektaAPI source code, she could avoid the user-interface altogether. She may even be able to build a predictive model with InspektaAPI data.

Limitations for this user:

There is no embedded statistical data in InspektaAPI, Marina would have to perform the statistical calculations herself. As a data ana lyst this would not be difficult. The task of gathering clean data is already completed by InspektahAPI.

Buyer - immediacy

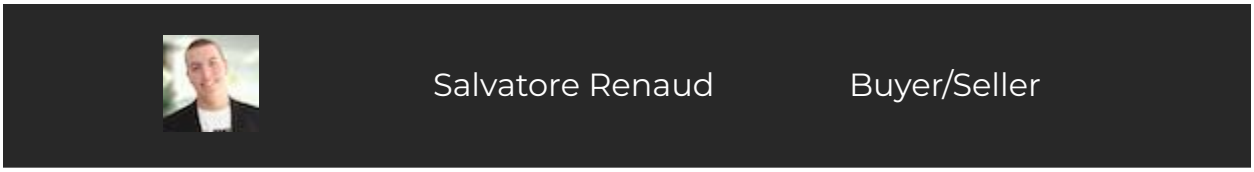


"I want to buy this product right now!"

This is a user of the application that wants to buy an item as soon as possible. They do not care about getting the minimum possible price.

How would this user best benefit from using InspektahAPI?
Pedro can use this application to quickly find out if Walmart sells his item of choice. He can then determine if he wants to buy online or in person
Limitations for this user:
Pedro cannot buy directly from InspektaAPI

Buyer/Seller



"I want to resell my items"

This user wants to buy low, and sell high. They use the platform to buy an item, receive it, post a listing, and sell at a higher price for a profit.

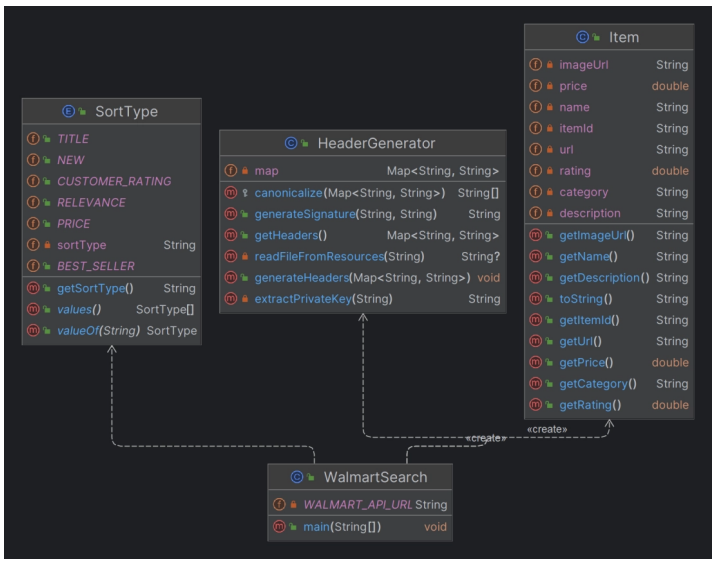
How would this user best benefit from using InspektaAPI?
Salvatore can filter by price and determine competitive prices for selling his items. He can gather data about competitors with InspektaAPI and buy/sell his items via a third party site.
Limitations for this user:
Salvatore cannot sell his items directly over InspektaAPI.

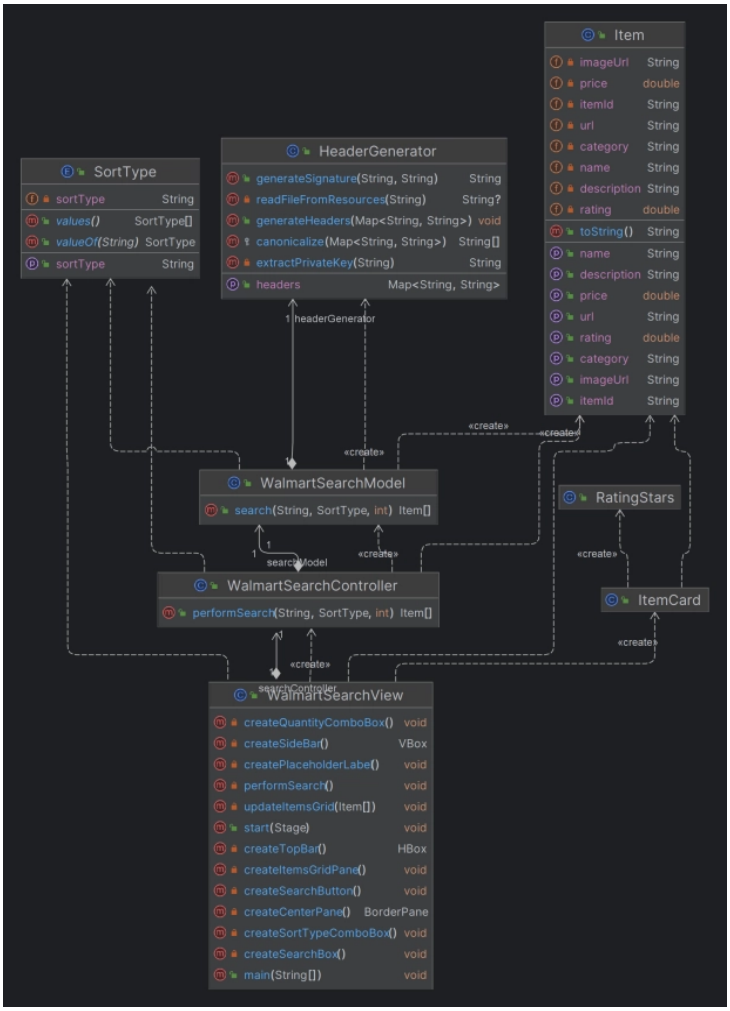
Incompletions

Statistical info: Team 2 wanted to implement statistical processing in InspektahAPI. We were delayed by the fact that accessing a company's API is difficult, and it took us a week to accomplish this. It is rather difficult to access retail APIs.

Multiple APIs: We also wanted to add functionality for searching several retail sites at the same time. This proved infeasible in our timeframe, as Walmart was the only API we gained access to after a week of research.

UML Diagrams:





CRC Cards

HeaderGenerator	KeyRep
• Create, Canonicalize, Iterate, Populate HashMap • Extract Private Key for API access • Create Headers, Signatures, ServiceKeyRep • Resolve Key Obj	• KeyRep • WalmartAPI

WalmartSearchController	
• Pass user's input as search query to Walmart API	• WalmartAPI

WalmartSearchModel	
• Perform and represent the product search application.	• Item • SortType • WalmartAPI

WalmartSearchView	Application
• Design GUI components • Set the scenery	• Application • ItemCard • Item • SortType • WalmartSearchController • WalmartAPI