

Software Developer

Case Study

Hello,

Dear candidate, in this project you will build a simple scraper for one of our customer.

Description of Assignment

As you know AnalyticaHouse is a consultant on digital marketing area. We have bunch of customers taking consulting services from us. (which are leading brands in their sector 😎)

Lets say one of our customers demanded a Product Report about it's products. Your mission is to build a system that do scraping, writing and e-mailing.

This mission has three phase:

1. Scrape necessary metrics from product pages
2. Write this data to Google Sheets
3. Using Google Apps Script : Sort the products by availability value send this data with an e-mail to "okan@analyticahouse.com" and write your name to the subject area of e-mail.
4. Bonus

1. Scrape necessary metrics from product pages

Your mission is build a crawling system which will go to those URLs (There is an xlsx file at the attachment), find out which urls are pointing product page(such as this <https://www.markastok.com/buratti-suya-ve-ruzgara-dayanikli-kapusunlu-s-oftshell-erkek-mont-2011055-indigo>) , scrape necessary metrics and write to Excel as separate columns. At the below picture all metrics can be seen. Note: You should append www.markastok.com.tr to every path for reaching page.

Slazenger Moon Koşu & Yürüyüş Erkek Ayakkabı SA10RE230
BEYAZ-LACİVERT

Offer **Product Name**

%55 **299,99 TL** **135,00 TL** **Sale Price**

Product Price

BEYAZ-LACİVERT

< >

Beden Seçiniz **Beden Tablosu**

40 41 44 42 43 **Product Availability**

Sepete Ekle

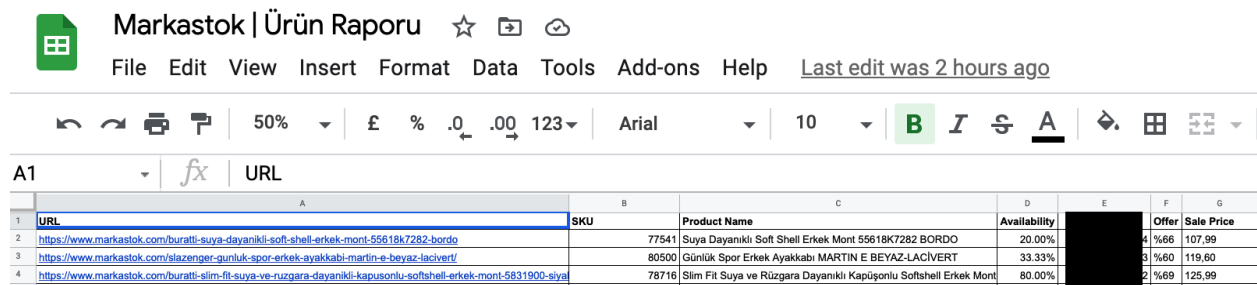
Tahmini Kargoya Veriliş Tarihi:
18.04.2021 - 20.04.2021

2. Write this data to Google Sheets

For the second mission you should write this data to Google Sheet programmatically with your gmail user.

Google has comprehensive documentation about it therefore you should look here: <https://developers.google.com/sheets/api>

At the end we expect you to create a report like this :



Markastok Ürün Raporu						
File Edit View Insert Format Data Tools Add-ons Help Last edit was 2 hours ago						
A1 fx URL						
1	URL	SKU	Product Name	Availability	Offer	Sale Price
2	https://www.markastok.com/buratti-suya-dayanikli-soft-shell-erkek-mont-55618k7282-bordo	77541	Suya Dayanıklı Soft Shell Erkek Mont 55618K7282 BORDO	20.00%	4 %66	107,99
3	https://www.markastok.com/slazenger-gunluk-spor-erkek-ayakkabi-martin-e-beyaz-laciverti/	80500	Günlük Spor Erkek Ayakkabı MARTIN E BEYAZ-LACİVERTİ	33.33%	3 %60	119,60
4	https://www.markastok.com/buratti-slim-fit-suya-ve-ruzgara-dayanikli-kapusonlu-softshell-erkek-mont-5831900-siyah	78716	Slim Fit Suya ve Rüzgara Dayanıklı Kapüşonlu Softshell Erkek Mont	80.00%	2 %69	125,99

3. Sorting and Sending data with an Email

For the final mission, you should sort the products by availability value and send this data to "okan@analyticahouse.com" using Google Apps Script.

You should not use the UI of Sheets, all the work should be done by Google Apps Script and of course with plain javascript. You should upload your Javascript code to Github as well.

Again Google has dedicated documentation about it so you should check it! <https://developers.google.com/apps-script>

4. Bonus

Every product has product code in it's page. If you manage to scrape this value and put it as a separate column, you will gain additional points. Below there is a picture indicating Product Code.



The screenshot shows a product page with an orange 'Sepete Ekle' button at the top left. To its right, the text 'Tahmini Kargoya Veriliş Tarihi: 18.04.2021 - 20.04.2021' is displayed. Below the button, the section 'Ürün Özellikleri' is visible. The product details listed are: 'Giyim Tarzı : Günüluk Spor', 'Ana Materyal : Suni Deri ve Tekstil', 'İç Materyal : Tekstil', 'Kapama Bilgisi : Bağcıklı', 'Taban Bilgisi : Eva', and 'Üretim Yeri : Türkiye 3S01MOON.652'. A red arrow points from the text 'Product Code' to the value '3S01MOON.652'.

Sepete Ekle

Tahmini Kargoya Veriliş Tarihi:
18.04.2021 - 20.04.2021

Ürün Özellikleri

Giyim Tarzı : Günüluk Spor
Ana Materyal : Suni Deri ve Tekstil
İç Materyal : Tekstil
Kapama Bilgisi : Bağcıklı
Taban Bilgisi : Eva
Üretim Yeri : Türkiye
3S01MOON.652

Product Code

Additional Questions

1. If I'd have 10.000 urls that I should visit, then it takes hours to finish. What can we make to fasten this process?
2. What can we make or use to automate this process to run once a day? Write your recommendations.
3. Please briefly explain what an API is and how it works.

Sending the project

To demonstrate your work, you should follow these steps.

1. Use git and upload your source code(Python, Javascript) onto your GitHub page as a public repository. It would be nice if we don't see `Add files via upload` as a commit description :)
2. Add a README.md file with the project description into your repo. Project description should include following items.
 - a. URL of the Report.
 - b. Used tech-stack (library/framework etc.)
 - c. A brief description of the challenges you face.
 - d. What did you learn from this project?
 - e. Answers of the additional questions.

That's it. Good Luck and Take Care! 🍀