

Sentiment Analysis

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Contents

Slide Contents	Slide Number
What is sentiment analysis ?	3
Motivation	4
Abstract	5
Existing System	6
Proposed System	7
Requirements	8
Design	13
Implementation	16
Testing	19
Result	21
Conclusion	22

Sentiment Analysis

“Sentiment analysis is the task of identifying positive and negative opinions, emotions and evaluations in text”



The weather is
great today :)

Opinion



I think its almost
30 degrees today

Fact



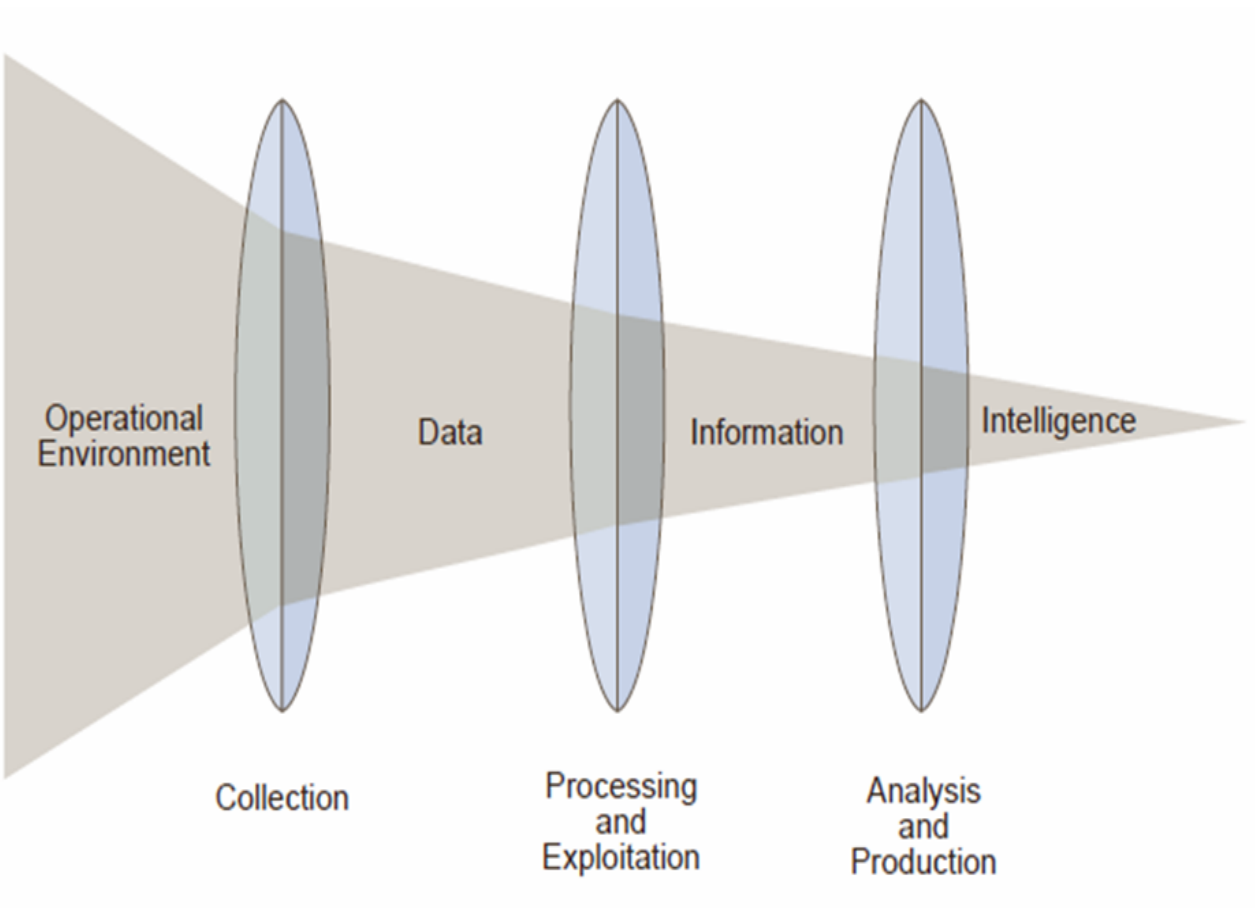
Nooo, it is very
humid :(

Opinion

Tweets

Reviews

Anything



| **Consumer Information**

| **Politics**

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Abstract



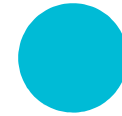
E-commerce growth

The number of customer reviews that a product receives grows rapidly.



NLP

Enabling computers to derive meaning from human or natural language input.




Sentiment Analysis

Computationally identifying and categorizing opinions expressed in a piece of text.

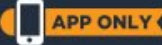
Existing System

6



All ▾

Q

Up to 20% off | P&G products | 

Shop by Category ▾

Your Amazon.in

Today's Deals


Gift Cards

Sell

Customer Service

Hello. Sign in Your Orders ▾

Wish List ▾

 0 Cart

Moto G Plus, 4th Gen (Black, 32 GB) > Customer Reviews

Customer Reviews

★★★★☆ 14,293

3.8 out of 5 stars


5 star 6,355

4 star 3,723

3 star 1,465

2 star 861

1 star 1,889



Moto G Plus, 4th Gen (Black, 32 GB)


Colour Name: Black | Size: 32GB | [Change](#)

Price: ₹ 14,999.00

Rate this item

★★★★★

Write a review

 Add to Cart

Add to Wish List

Top positive review

[See all 10,078 positive reviews](#)

One person found this helpful

★★★★☆ **Will not meet all expectations**

By Nishu Kothari on 25 July 2016

It never hangs. But it has heating issues which the company says is normal. I don't know a day when the laser focus has done its work. Camera quality is gud but not up to the par. Lenovo k4 note's camera is much better. Fingerprint sensor doesn't work all the times and often the phone prompts you to use the backup pin. The maximum processor speed is 1.21 Ghz as my phone itself shows me. Overall I think k4 note is a much better choice .

Top critical review

[See all 4,215 critical reviews](#)

5 people found this helpful

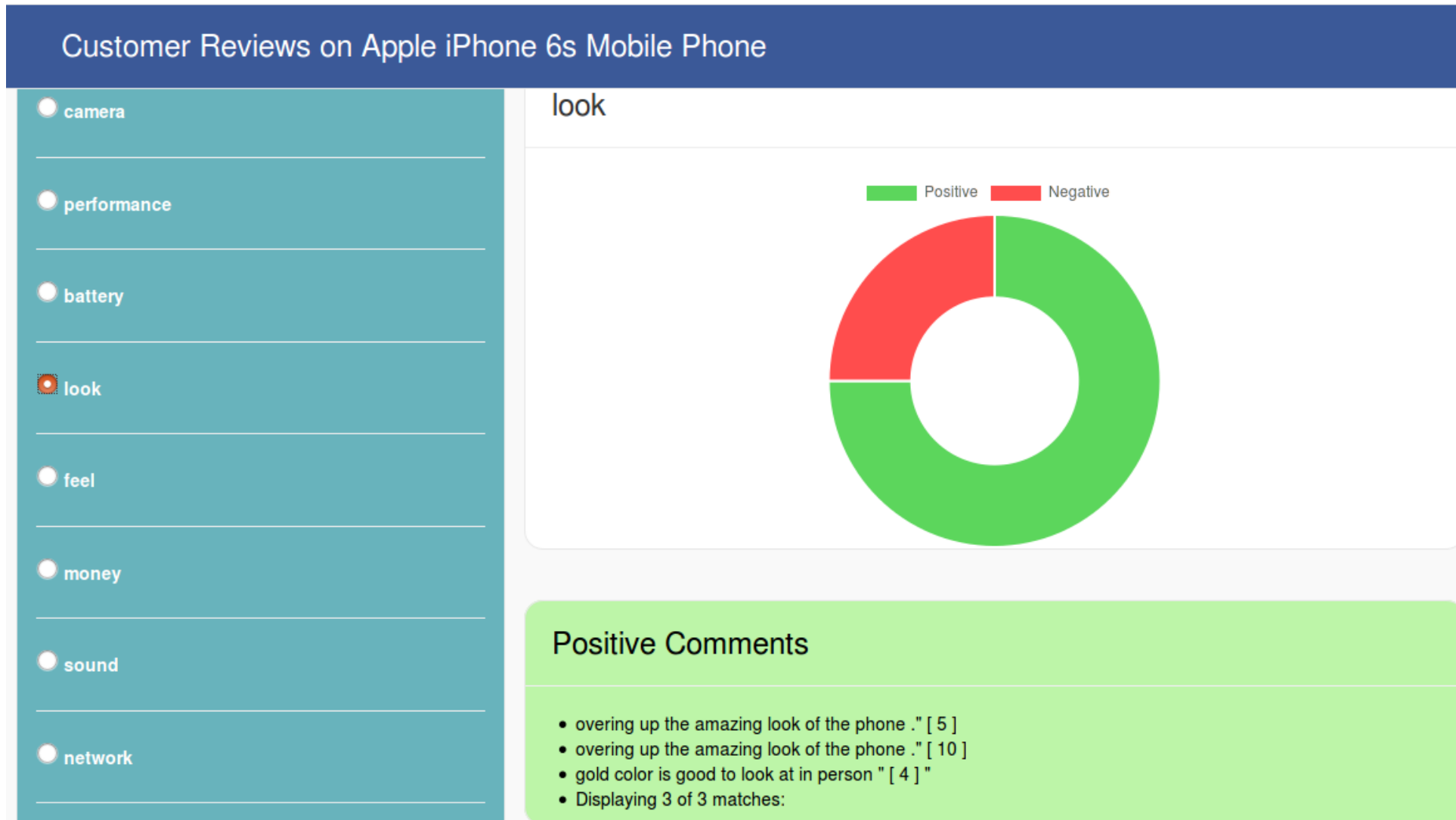
★☆☆☆☆ **Not satisfied with product.**

By Shraddha on 18 July 2016

Vey bad service by Seller. I have bought this mobile 2 weeks before, first time I returned because charger was not appropriate and 2nd time the charger issue was not resolved also the received was not of good quality. It is getting automatically restarted. Also power button key is hard to operate. returned the product finally.

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Proposed System



Functional Requirements



Url of product

The user need to enter Url of product to analyse the comments of the product.

The screenshot displays the Amazon India product page for the Moto G Plus, 4th Gen (Black, 32 GB). The browser address bar shows the URL: www.amazon.in/gp/product/B01DDP7GZK/ref=s9_simh_gw_g107_i1_r?pf_rd_m=A1VBAL9TL5WCBF&pf_. The page features the Amazon.in logo, a search bar, and navigation links. The product title is "Moto G Plus, 4th Gen (Black, 32 GB)" by Motorola. The price is ₹ 14,999.00, and it is marked as "Fulfilled" with "FREE Delivery". The page also shows customer reviews, a "Share" button, and a "100% Purchase Protection" badge. The "Add to Cart" and "Buy Now" buttons are visible at the bottom right.

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Specification

The user need to enter specific feature of the product to analyse the comments of the product.



Non-Functional Requirements



Performance requirements

Requires a high speed internet connection at least **(1 Mbps)**.



Response time

Analysis is performed in less than **1 second (0.2 - 0.7 secs)**.



Web Designing

1. HTML
2. CSS
3. Javascript
4. Django (Web Framework)



Data Scraping

1. R Programming



Data Analysis

1. Python



Libraries

1. Natural Language Tool Kit

Hardware Requirements



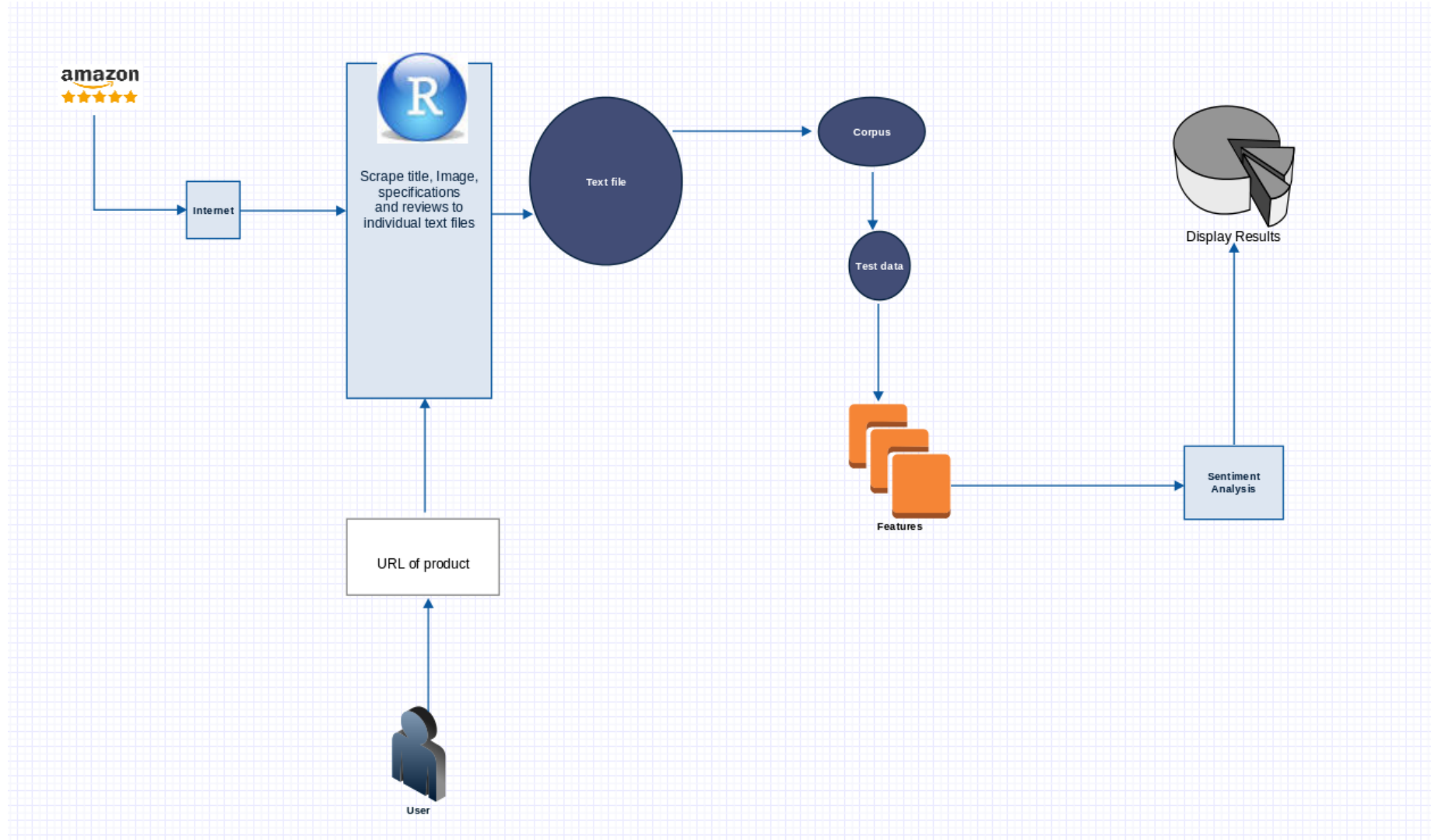
Any Dual core Processor



Access to Internet

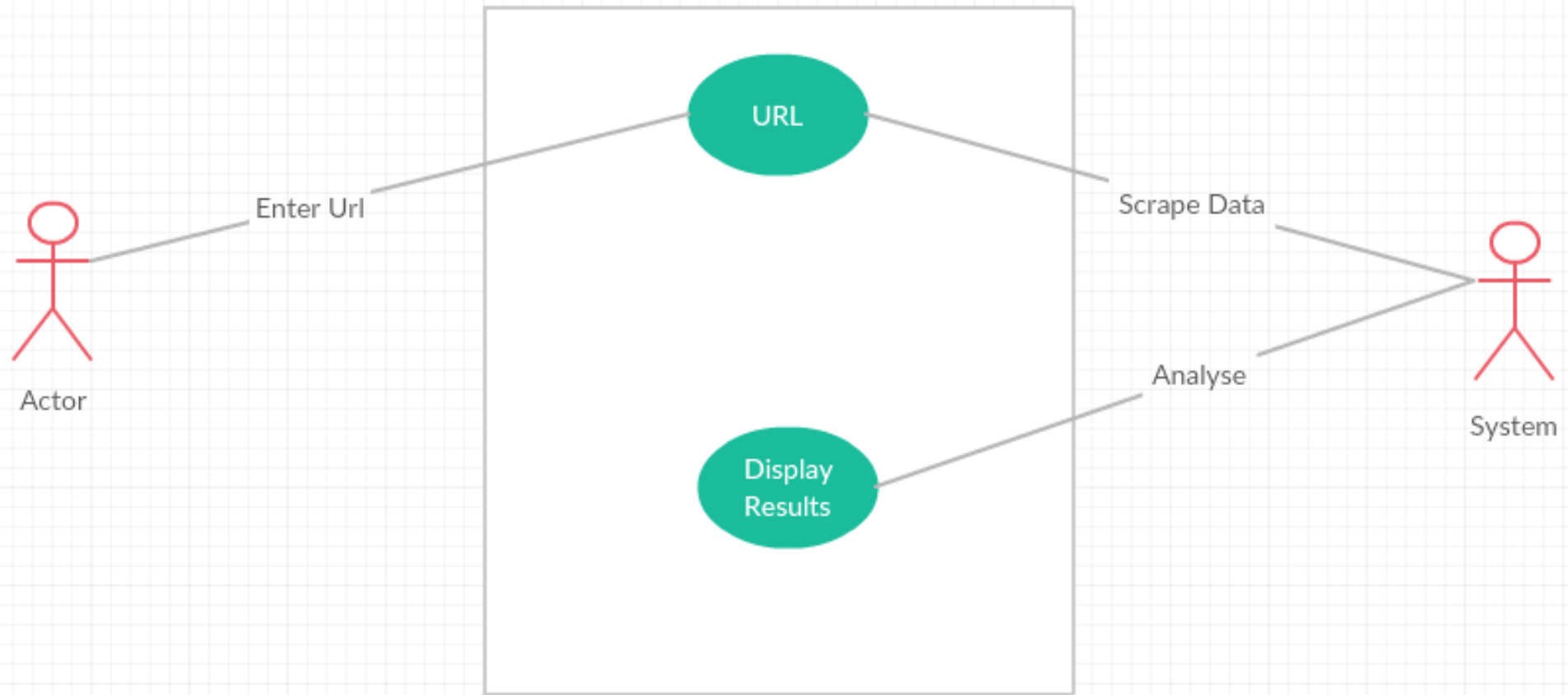
Architecture

13



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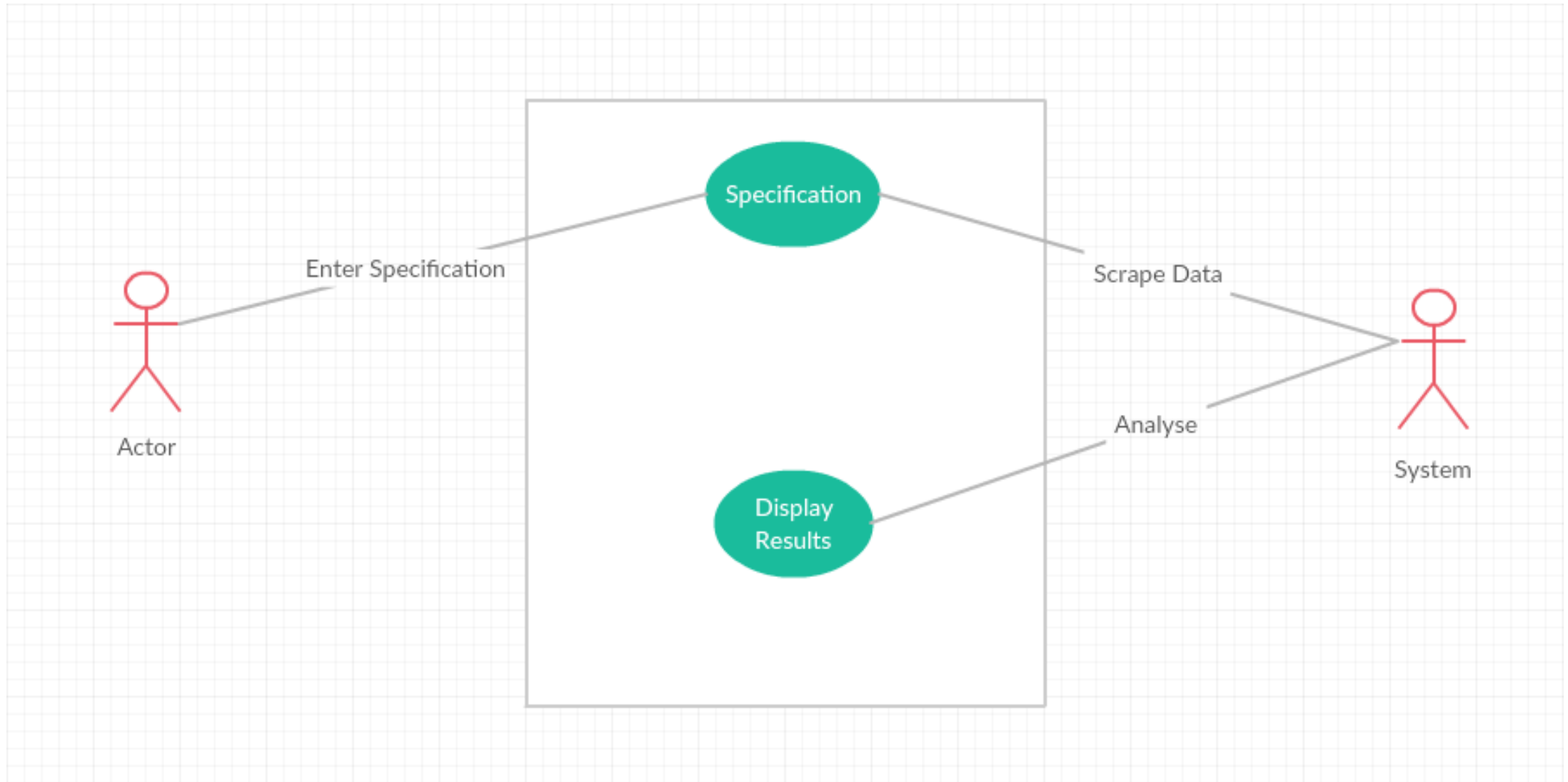
Use case diagram



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Use case diagram

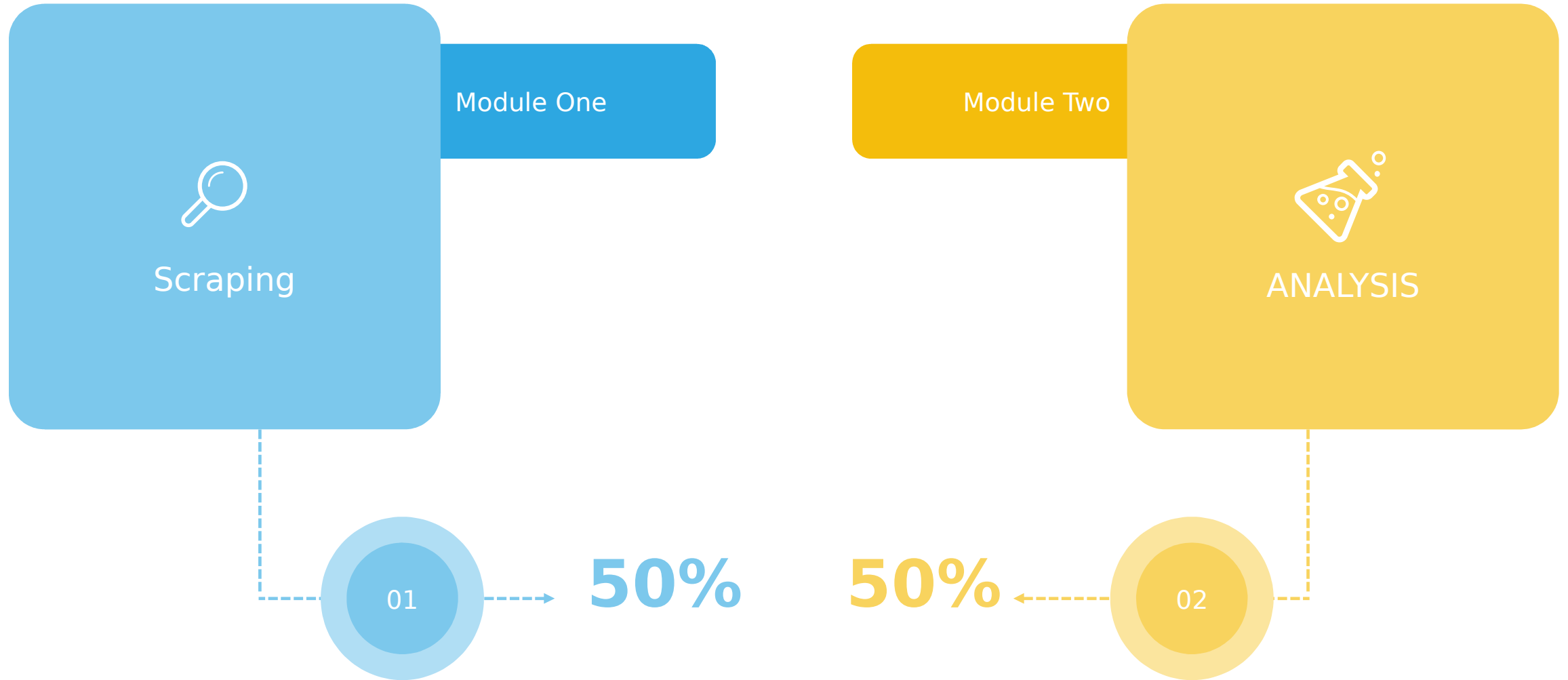
15



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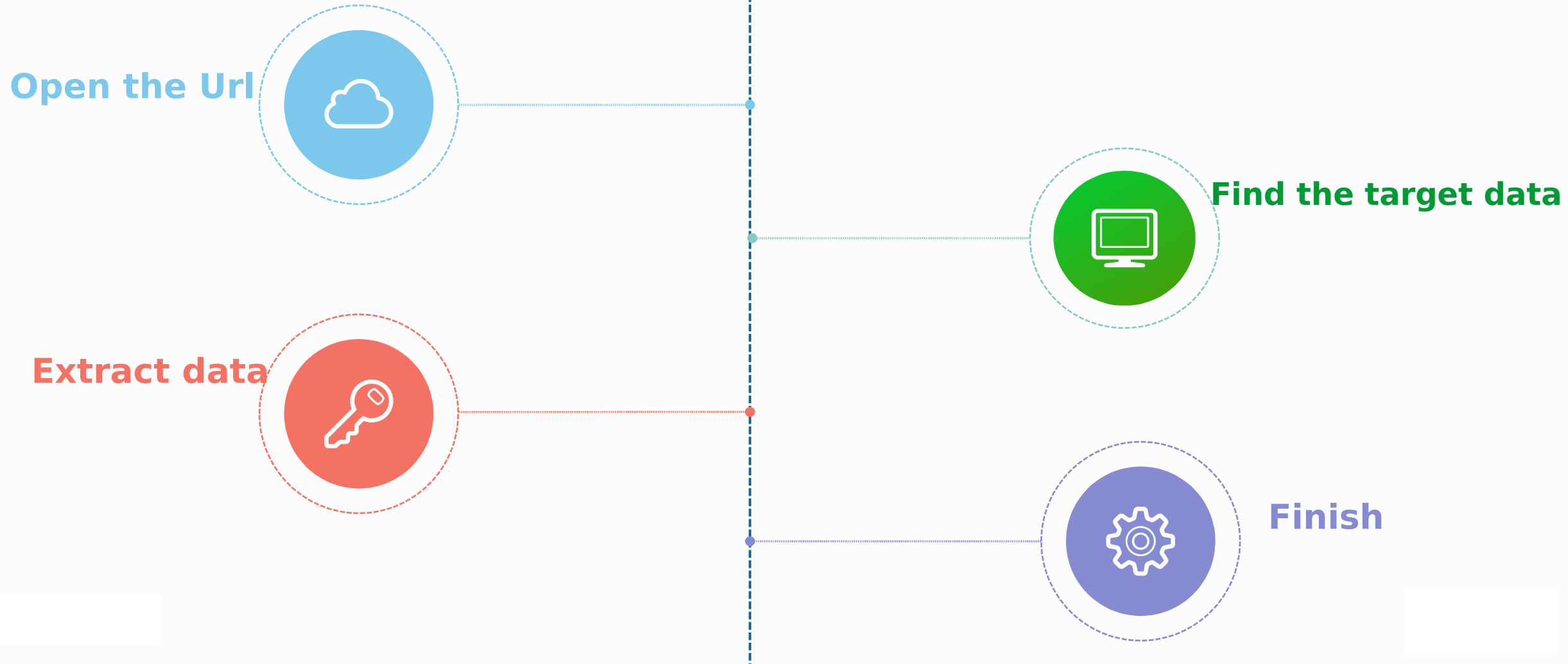
Modules

16



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Modules



Read Data



Display Data



Sentiment Analysis



FINISH



Url Field

Enter the URL of product to be analysed

Url of product: test

Analyse

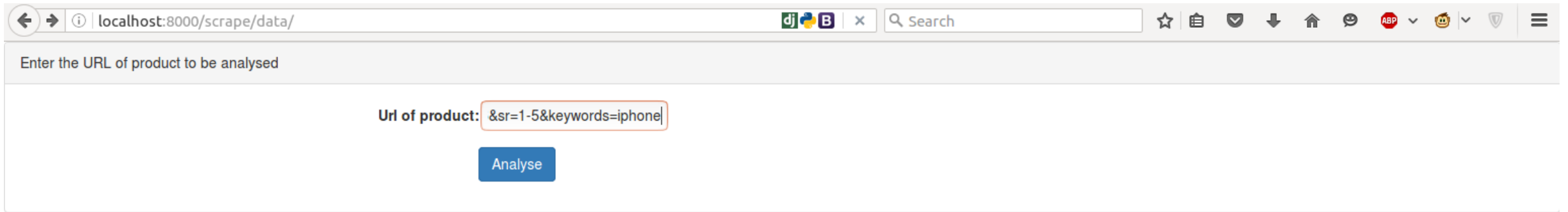
It accepts only URLs

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Screen shots

20

Main page



The screenshot shows a web browser window with the address bar displaying 'localhost:8000/scrape/data/'. The page has a light gray header with the text 'Enter the URL of product to be analysed'. Below this, there is a form with a label 'Url of product:' followed by a text input field containing '&sr=1-5&keywords=iphone'. A blue button labeled 'Analyse' is positioned below the input field.

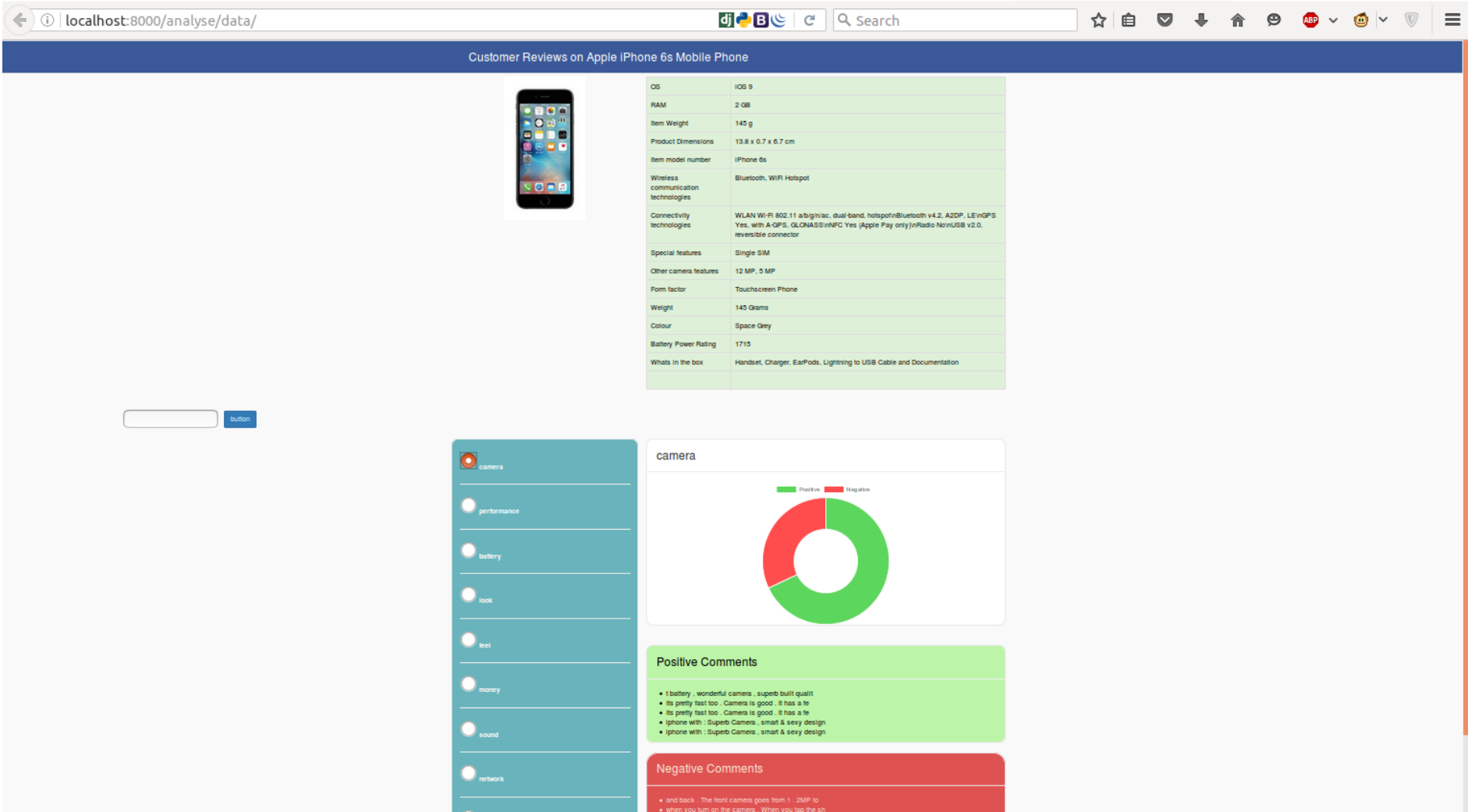
Enter the URL of product to be analysed

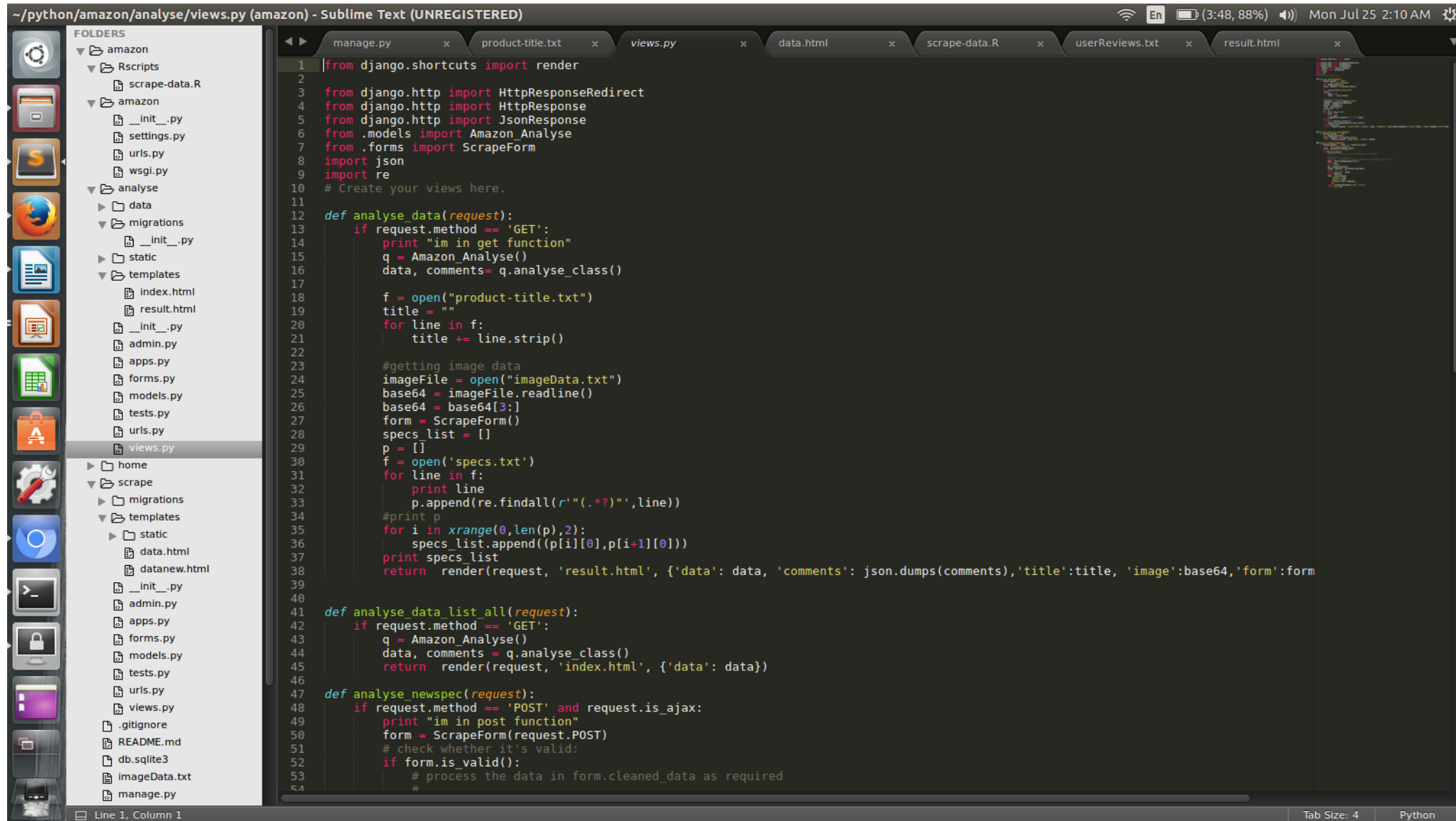
Url of product:

Analyse

Screen Shots

Results





The screenshot shows a Sublime Text editor window titled "~ /python/amazon/analyse/views.py (amazon) - Sublime Text (UNREGISTERED)". The interface includes a sidebar on the left with a "FOLDERS" panel showing the project structure, a top tab bar with open files, and a main editor area displaying the code for `views.py`.

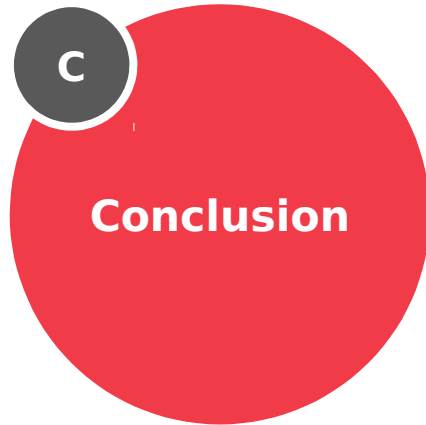
Project Structure (FOLDERS):

- amazon
 - Rscripts
 - scrape-data.R
 - amazon
 - __init__.py
 - settings.py
 - urls.py
 - wsgi.py
 - analyse
 - data
 - migrations
 - __init__.py
 - static
 - templates
 - index.html
 - result.html
- home
- scrape
 - migrations
 - templates
 - static
 - data.html
 - datanew.html

Code in `views.py`:

```
1 from django.shortcuts import render
2
3 from django.http import HttpResponseRedirect
4 from django.http import HttpResponse
5 from django.http import JsonResponse
6 from .models import Amazon_Analyse
7 from .forms import ScrapeForm
8 import json
9 import re
10 # Create your views here.
11
12 def analyse_data(request):
13     if request.method == 'GET':
14         print "im in get function"
15         q = Amazon_Analyse()
16         data, comments= q.analyse_class()
17
18         f = open("product-title.txt")
19         title = ""
20         for line in f:
21             title += line.strip()
22
23         #getting image data
24         imageFile = open("imageData.txt")
25         base64 = imageFile.readline()
26         base64 = base64[3:]
27         form = ScrapeForm()
28         specs_list = []
29         p = []
30         f = open('specs.txt')
31         for line in f:
32             print line
33             p.append(re.findall(r"(.*)",line))
34         #print p
35         for i in xrange(0,len(p),2):
36             specs_list.append((p[i][0],p[i+1][0]))
37         print specs_list
38         return render(request, 'result.html', {'data': data, 'comments': json.dumps(comments), 'title': title, 'image': base64, 'form': form})
39
40
41 def analyse_data_list_all(request):
42     if request.method == 'GET':
43         q = Amazon_Analyse()
44         data, comments = q.analyse_class()
45         return render(request, 'index.html', {'data': data})
46
47 def analyse_newspect(request):
48     if request.method == 'POST' and request.is_ajax:
49         print "im in post function"
50         form = ScrapeForm(request.POST)
51         # check whether it's valid:
52         if form.is_valid():
53             # process the data in form.cleaned_data as required
54             #
```

The status bar at the bottom indicates "Line 1, Column 1", "Tab Size: 4", and "Python".



Summarizing product reviews based on sentiment analysis & natural language processing methods.

The objective is to provide a feature-based summary of a large number of customer reviews of a product sold online.