

Opinion Mining: Aspect Extraction

- Objective :** To extract aspects from the online review of products and to analyze the general opinion regarding the aspects (positive, negative or neutral)
- Input :** Text review of a product (extracted from online or magazine)
- Output :** A list of aspects and the opinion about them in the review
- Platform :** Python3
- Packages :** nltk (Natural Language Toolkit), ast (Abstract Syntax Tree), re (Regular Expression Operation)

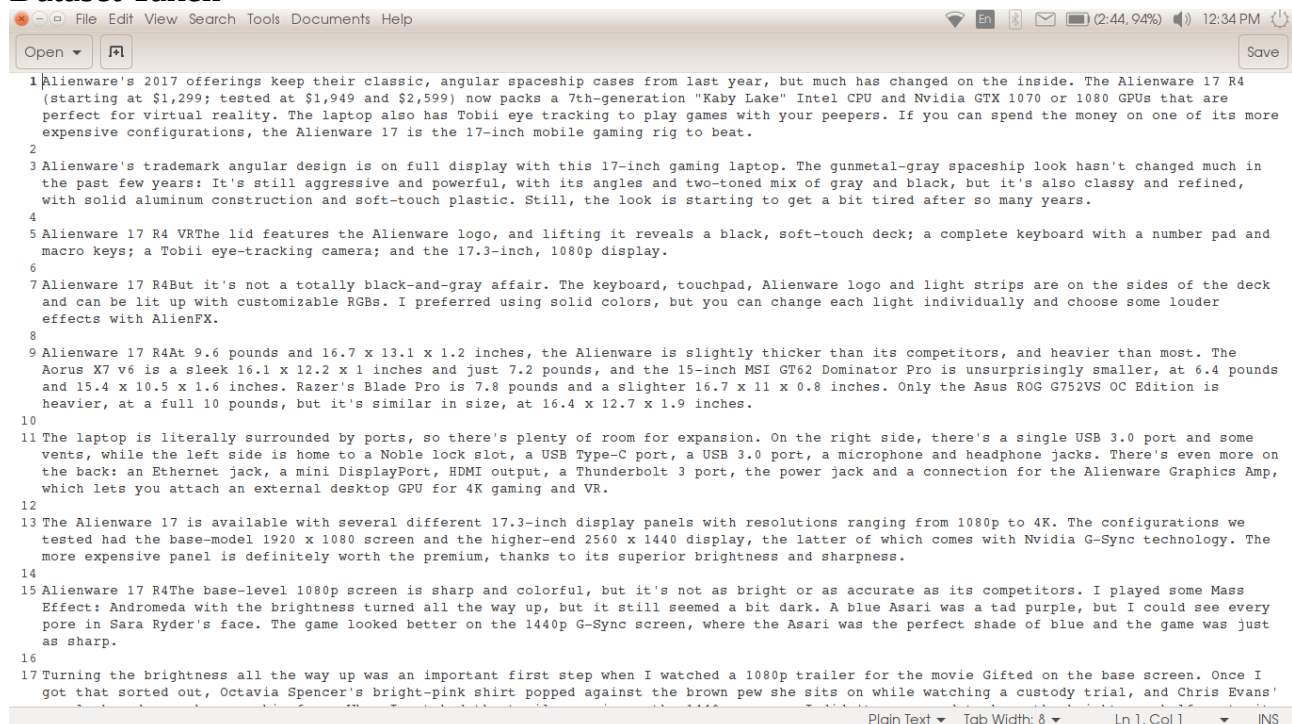
Methodology

The general method for opinion mining involves the following steps

1. **Preprocessing :** Removal of stop words.
2. **Tokenization :** Formation of token of sentences / phrases
3. **Classification :** Classification of words according to their parts of speech
4. **Aspect Extraction:** Identification of Aspects in the text
5. **Opinion Mining :** Determination of opinion of the extracted Aspects referring to available corpus

Example Case

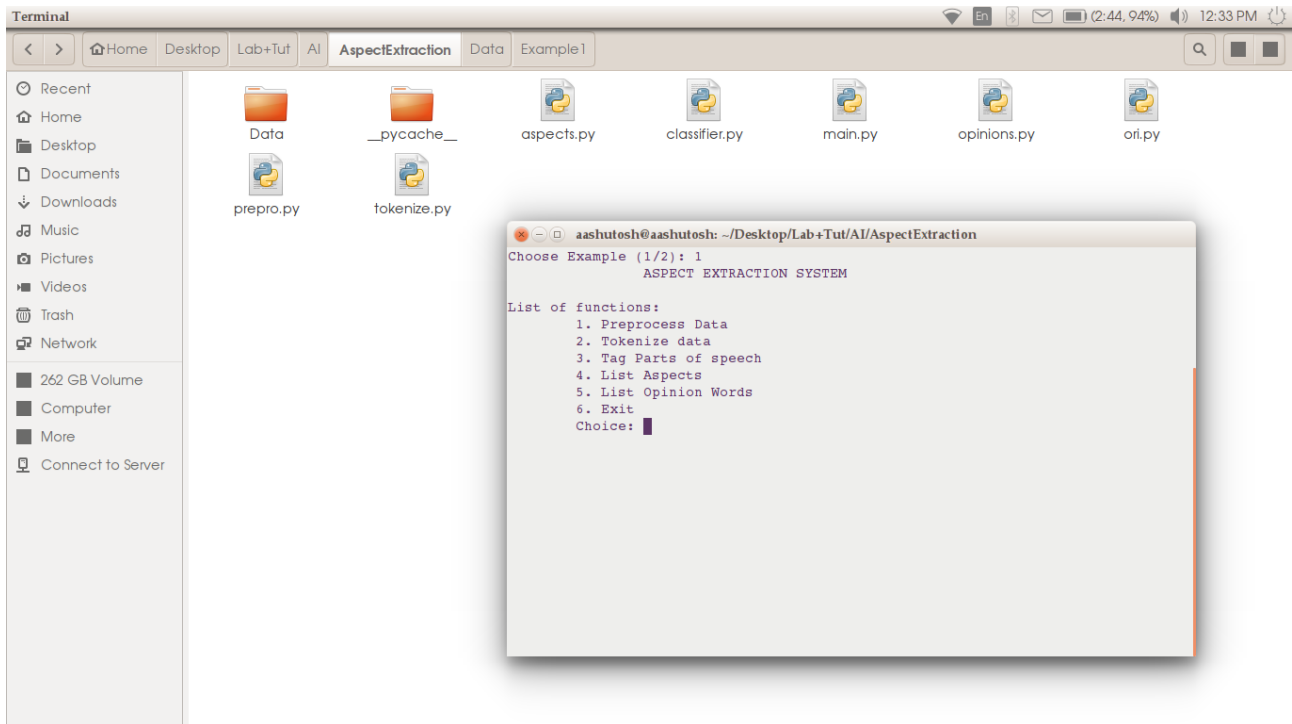
Dataset Taken



```
File Edit View Search Tools Documents Help
Open Save
1 Alienware's 2017 offerings keep their classic, angular spaceship cases from last year, but much has changed on the inside. The Alienware 17 R4
  (starting at $1,299; tested at $1,949 and $2,599) now packs a 7th-generation "Kaby Lake" Intel CPU and Nvidia GTX 1070 or 1080 GPUs that are
  perfect for virtual reality. The laptop also has Tobii eye tracking to play games with your peepers. If you can spend the money on one of its more
  expensive configurations, the Alienware 17 is the 17-inch mobile gaming rig to beat.
2
3 Alienware's trademark angular design is on full display with this 17-inch gaming laptop. The gunmetal-gray spaceship look hasn't changed much in
  the past few years: It's still aggressive and powerful, with its angles and two-toned mix of gray and black, but it's also classy and refined,
  with solid aluminum construction and soft-touch plastic. Still, the look is starting to get a bit tired after so many years.
4
5 Alienware 17 R4 VRThe lid features the Alienware logo, and lifting it reveals a black, soft-touch deck; a complete keyboard with a number pad and
  macro keys; a Tobii eye-tracking camera; and the 17.3-inch, 1080p display.
6
7 Alienware 17 R4But it's not a totally black-and-gray affair. The keyboard, touchpad, Alienware logo and light strips are on the sides of the deck
  and can be lit up with customizable RGBs. I preferred using solid colors, but you can change each light individually and choose some louder
  effects with AlienFX.
8
9 Alienware 17 R4At 9.6 pounds and 16.7 x 13.1 x 1.2 inches, the Alienware is slightly thicker than its competitors, and heavier than most. The
  Aorus X7 v6 is a sleek 16.1 x 12.2 x 1 inches and just 7.2 pounds, and the 15-inch MSI GT62 Dominator Pro is unsurprisingly smaller, at 6.4 pounds
  and 15.4 x 10.5 x 1.6 inches. Razer's Blade Pro is 7.8 pounds and a slither 16.7 x 11 x 0.8 inches. Only the Asus ROG G752VS OC Edition is
  heavier, at a full 10 pounds, but it's similar in size, at 16.4 x 12.7 x 1.9 inches.
10
11 The laptop is literally surrounded by ports, so there's plenty of room for expansion. On the right side, there's a single USB 3.0 port and some
  vents, while the left side is home to a Noble lock slot, a USB Type-C port, a USB 3.0 port, a microphone and headphone jacks. There's even more on
  the back: an Ethernet jack, a mini DisplayPort, HDMI output, a Thunderbolt 3 port, the power jack and a connection for the Alienware Graphics Amp,
  which lets you attach an external desktop GPU for 4K gaming and VR.
12
13 The Alienware 17 is available with several different 17.3-inch display panels with resolutions ranging from 1080p to 4K. The configurations we
  tested had the base-model 1920 x 1080 screen and the higher-end 2560 x 1440 display, the latter of which comes with Nvidia G-Sync technology. The
  more expensive panel is definitely worth the premium, thanks to its superior brightness and sharpness.
14
15 Alienware 17 R4The base-level 1080p screen is sharp and colorful, but it's not as bright or as accurate as its competitors. I played some Mass
  Effect: Andromeda with the brightness turned all the way up, but it still seemed a bit dark. A blue Asari was a tad purple, but I could see every
  pore in Sara Ryder's face. The game looked better on the 1440p G-Sync screen, where the Asari was the perfect shade of blue and the game was just
  as sharp.
16
17 Turning the brightness all the way up was an important first step when I watched a 1080p trailer for the movie Gifted on the base screen. Once I
  got that sorted out, Octavia Spencer's bright-pink shirt popped against the brown pew she sits on while watching a custody trial, and Chris Evans'
```

Plain Text Tab Width: 8 Ln 1, Col 1 INS

Driver Menu



Final Output

