User Guide

Sentiments Analysis R-3.7

Contents

1. About this Guide

1.1. Document History

Product Version	Date (Release date)	Description
BDB Sentiment Analyzer 1.0	June 9th, 2015	First Release of the Document
BDB Sentiment Analyzer 2.0	February 18th, 2016	Updated Document
BDB Sentiment Analyzer 2.5	November 9th, 2016	Updated Document
BDB Sentiment Analyzer 3.0	August 31st, 2017	Updated Document
BDB Sentiment Analyzer 3.2	February 2nd, 2018	Updated Document
BDB Sentiment Analyzer 3.5	April 15th , 2018	Updated Document
BDB Sentiment Analyzer 3.6	August 20th, 2018	Updated Document
BDB Sentiment Analyzer 3.7	October 10th, 2018	Updated Document

1.2. Overview

This guide covers:
- Introduction to the BDB Sentiment Analyzer App
- Steps to extract sentiments out of a text or verbal data
- Description of the various charts

1.3. Target Audience

This document aims at business professionals who use BDB Sentiment Analyzer to extract sentiments out of their business data.

2. Introducing the BDB Sentiment Analyzer

2.1. Introduction

The BDB Sentiment Analyzer is a text analyzer that chases words with positive or negative connotation. It then applies Natural Language Processing and machine learning algorithms to determine the exact correlation between expressive scripts and their social implementation. It is equipped with ANEW dictionary ("**Affective Norms for English Words**"), a set of normative emotional ratings for many words in the English language. This set of words have been rated in terms of pleasure, activation, and dominance to create a standard terminology for use in studies of emotion and attention. Subject matter for this app can be verbal data from news articles, blog posts, product reviews, Facebook comments, Tweets, and manually entered texts.

2.2. Prerequisites and Supported Devices
- o   A browser that supports HTML5
- o   Operating System: Windows 7
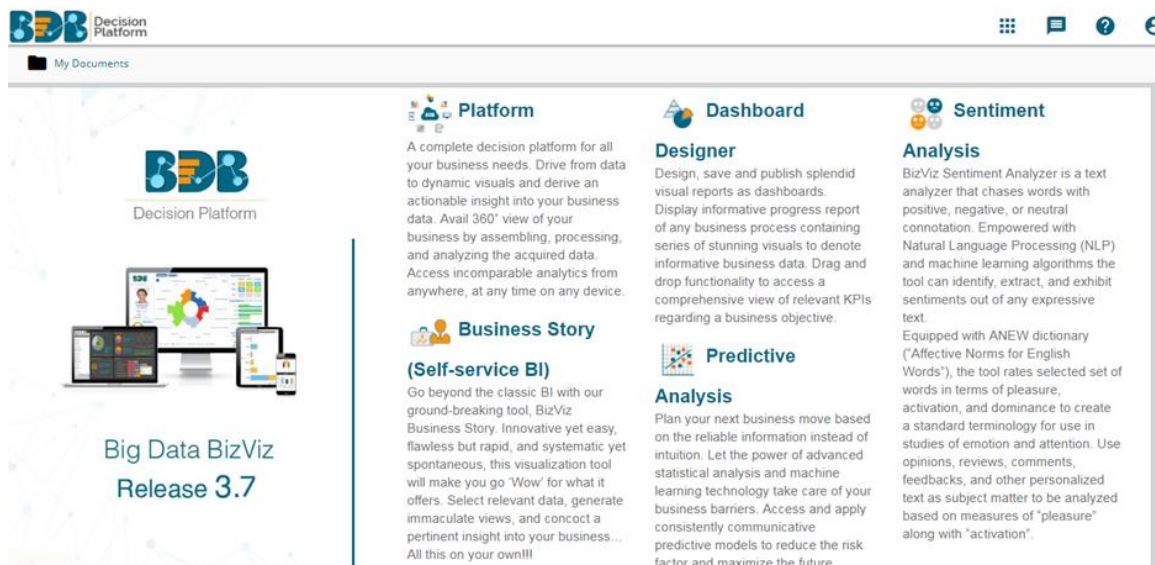- o   Basic understanding of the BDB Server

3. Getting Started with the BDB Sentiment Analyzer

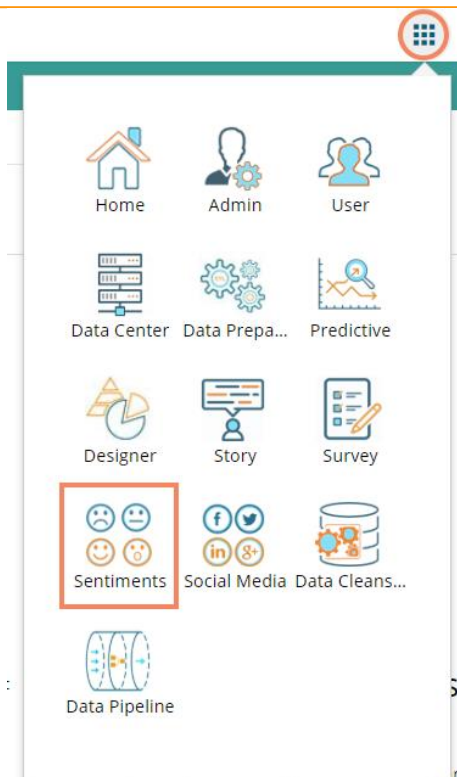BDB Sentiment Analyzer is a plugin application provided under BDB Platform.

    i)   Open BDB Enterprise Platform Link: https://app.bdb.ai

    ii)   Enter your credentials to Login.

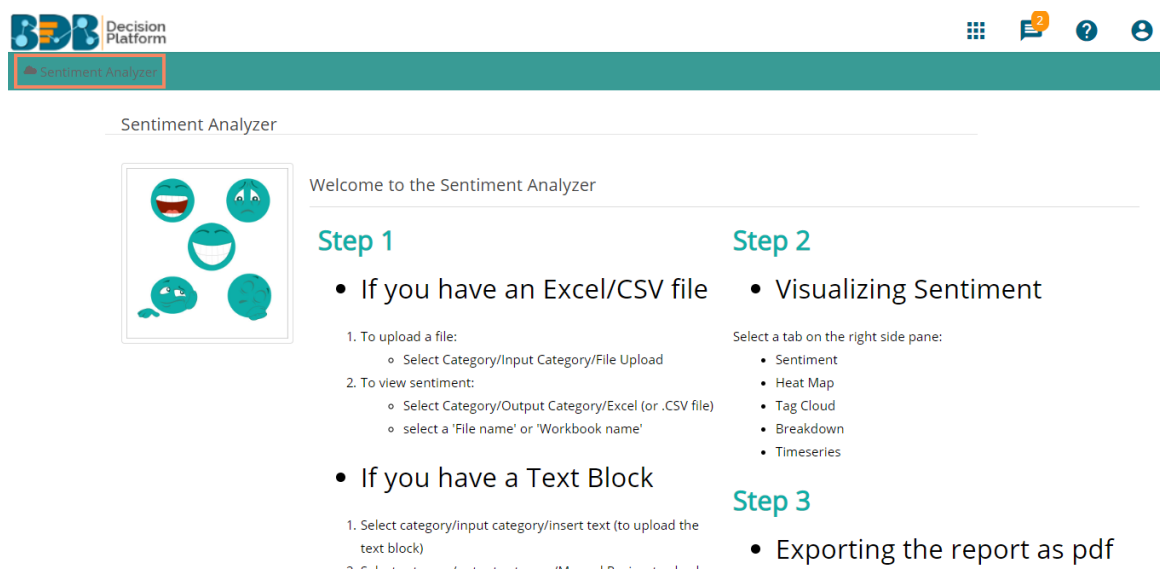   iii)   Click '**Continue**.'
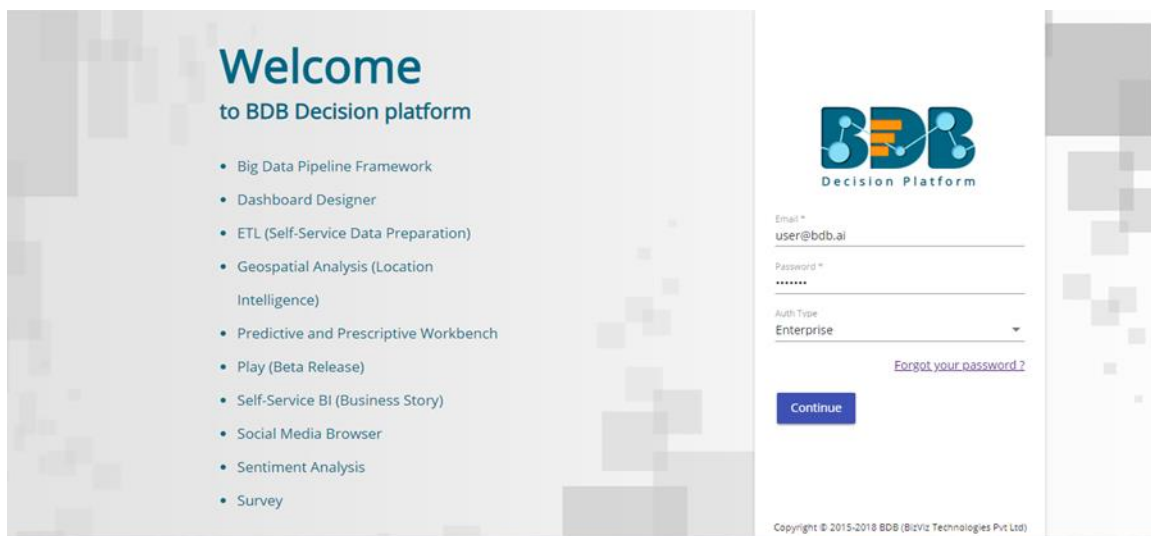
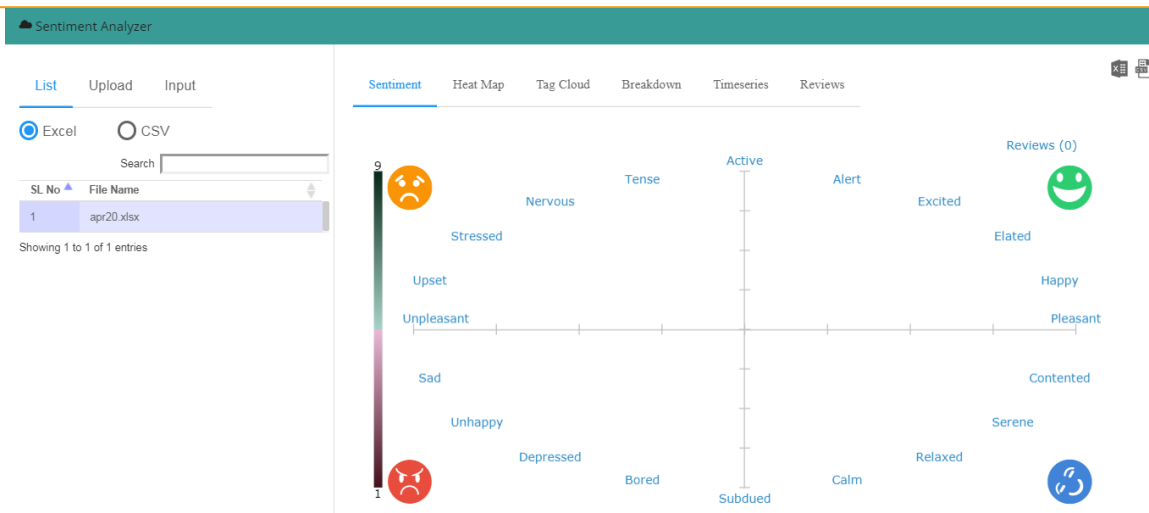   iv)   The homepage of the BDB Platform opens.

    v)   Click on the '**User Menu**' ⠿ to display a list of all the available plugins.

    vi)   Select the '**Sentiments**' plugin from the list.

vii) The Sentiment Analyzer landing page opens.

viii) Click the '**Sentiment Analyzer**' option on the top left of the landing page.

Sentiment Analyzer

Welcome to the Sentiment Analyzer

Step 1

- If you have an Excel/CSV file

1. To upload a file:
   - Select Category/Input Category/File Upload
2. To view sentiment:
   - Select Category/Output Category/Excel (or .CSV file)
   - select a 'File name' or 'Workbook name'

- If you have a Text Block

1. Select category/input category/insert text (to upload the text block)

Step 2

- Visualizing Sentiment

Select a tab on the right side pane:
- Sentiment
- Heat Map
- Tag Cloud
- Breakdown
- Timeseries

Step 3

- Exporting the report as pdf

ix) Users will be redirected to the Sentiment Analyzer homepage.

3.1.1. Forgot Password Option

Users are provided with a choice to change the password on the Login page of the platform.

  i)   Navigate to the Login page
  ii) Click '**Forgot your password?**' option

  iii) A new window opens
  iv) Provide the email id that is registered with BDB to send the reset password link
  v)   Click '**Continue**' option

vi) Users may be redirected to select a space in case of multiple spaces under one server link; they need to select a space and click the 'Continue' option once again, otherwise a message will pop-up to notify that the password reset link has been sent to the registered email.

vii) Click the link from your registered email
viii) Users get redirected to the 'Reset Password' page to set a new password
ix) Set a new password
x) Confirm the newly set password
xi) Click the '**Continue**' option

Reset Password

You've confirmed ownership of the BizViz Account, Reset your password now to regain access.

New Password *

••••••••••••

Confirm New Password *

••••••••••••

Continue

xii) The password for the selected BDB account gets reset

3.1.2. Force Login

The '**Force Login**' functionality controls the count of active sessions up to three at a time.

i) Users can access only 3 sessions at a time using different devices

ii) A warning message appears while accessing the 4th session to notify that the user has consumed all the permitted sessions and a click on the '**Force Login**' option would kill all those active sessions.
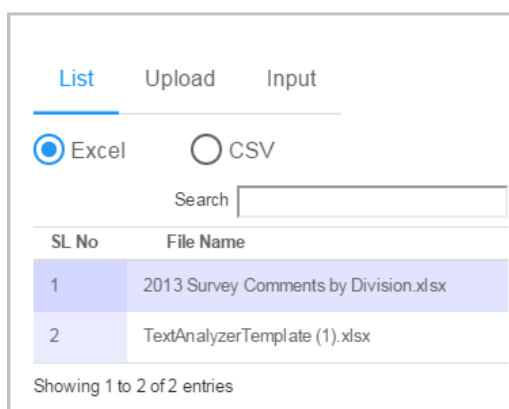
4. Options

This section describes 3 options to read text data from the data source.

- **List**: To display the available data files in Excel or CSV format
- **Upload**: To upload data files in Excel or CSV format
- **Input**: To insert the verbal data manually

4.1. List

This option will display all the uploaded Excel and CSV files that can be used as a **data source** for the Sentiment Analyzer.
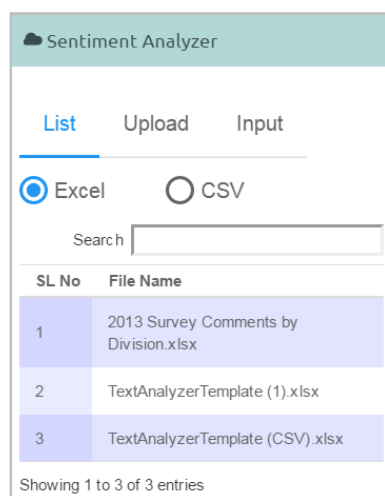

Note:
a. Use '**Search**' box to search a specific file from the given list
b. A list of all the existing Excel files will be displayed by default

4.1.1. Opening an Excel File
i)   Navigate to the Sentiment Analyzer home page.
ii)   Click '**List**.'
iii) A list of all the existing/uploaded Excel files will be displayed (by default.)
iv)   Select an Excel file from the list.

v)   A list containing sub-files will be displayed.

vi)   Select a sub-file from the list.

vii)   The file content will be displayed through a chart (on the right side of the screen).
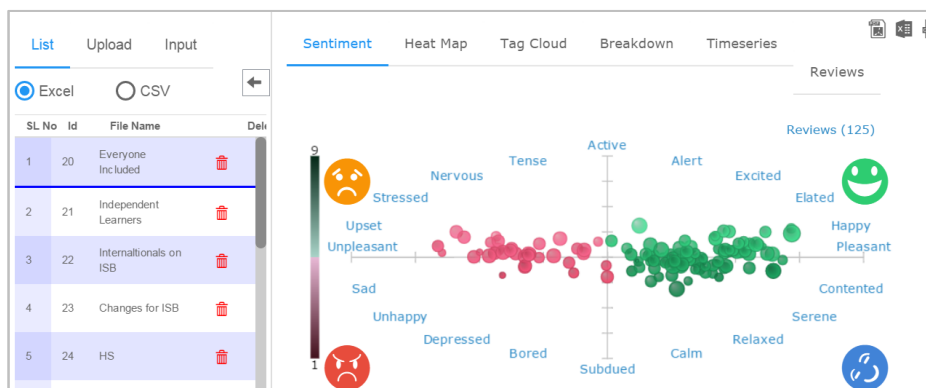
4.1.2. Export Options for an Excel File

This section explains 3 export options provided for an Excel file.

1. Export a Report as PDF

i)   Select an Excel File from the list.

ii)   A list of all the worksheets will be displayed.

iii)   Click the '**Export report as pdf**' option

iv)   The various charts of all worksheets will be exported as a pdf report.

2. Export Data in Excel

i)   Select an Excel File from the list

ii)   A list containing sub-files will be launched

iii)   Select a subfile

iv)   Click the '**Export data in excel**' option

v)   The text data will be exported into an Excel file.

3. Export Data in CSV

i)   Select an Excel File from the list

ii)   It will launch a list of available sub-files

iii)   Select a subfile

iv)   Click the '**Export data in CSV**' option

v)   The text data will be exported into a CSV file

4.1.3. Opening a CSV File

i)   Navigate to the Sentiment Analyzer app screen

ii)   Click '**List**'

iii)   It will display a list of all the existing Microsoft Excel files (by default)

iv)   Click the '**Check Box**' to select '**CSV**' option

v)   A list containing all the CSV files will be launched
vi)   Select a CSV file from the list
vii) The file content will be displayed through a chart (on the right side of the screen)
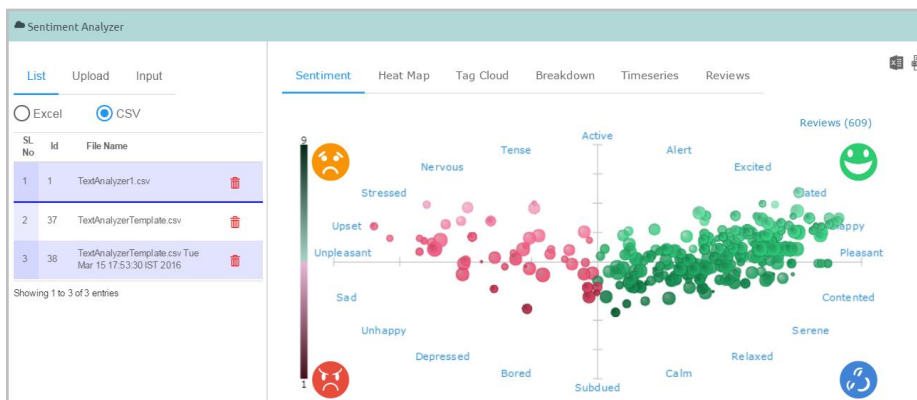
Note: Extracted sentiments will be displayed via the Sentiment chart (by default).

4.1.4. Export Options for a CSV File
This section explains 2 export options provided for a CSV file.

1. Export Data in Excel
i)   Select a CSV file from the list.

ii)   Click the '**Export data in excel**' option

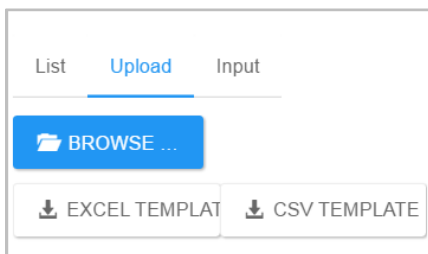iii) The file data will be exported into an Excel file.

2. Export Data in CSV
i)   Select a CSV file from the list.

ii)   Click the '**Export data in CSV'** option

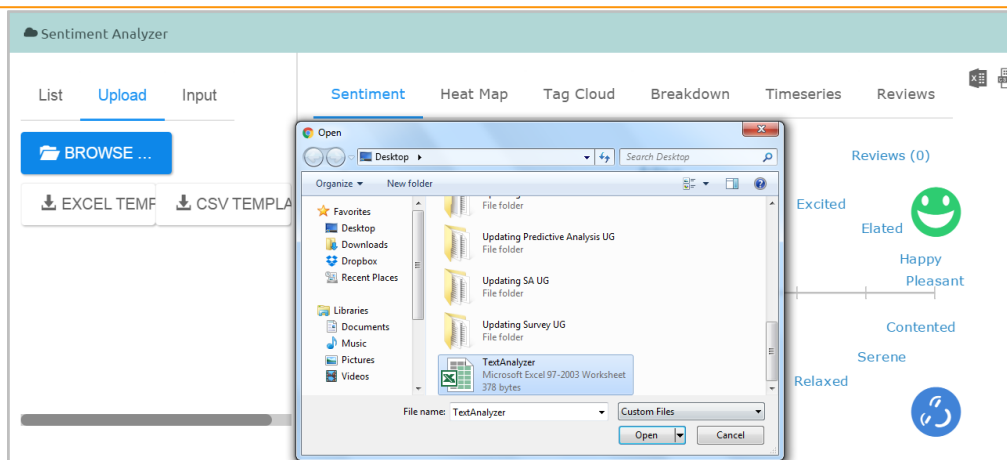iii) The file data will be exported into a CSV file.

4.2. Uploading a File
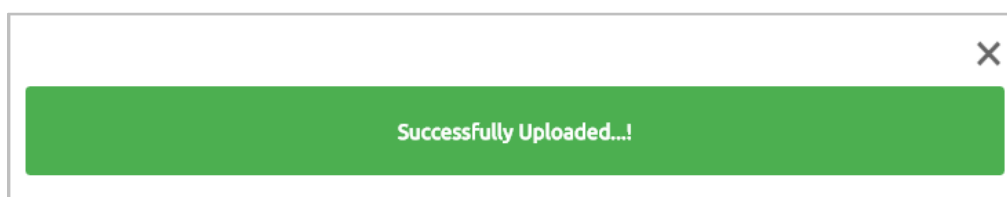This section explains how to upload an Excel or CSV file for Sentiment Analyzer.

i)   Navigate to the BDB Sentiment Analyzer homepage.
ii)   Click '**Upload**'.

iii) Browse a file from the system.
iv)   Click '**Open**' to upload the file.

v) A message will pop-up to assure that the selected file has been uploaded.

Note: Click the '**Download**' option ⬇ to download Microsoft Excel and CSV templates.

4.3. Input: Inserting a Text Block

i) Navigate to the BDB Sentiment Analyzer homepage.
ii) Click '**Input**.'
iii) Enter a text comment manually in the '**Input**' box.
iv) Click the '**SHOW ALL TEXT**' option.
v) Inserted comment/text will be displayed in a Sentiment chart.
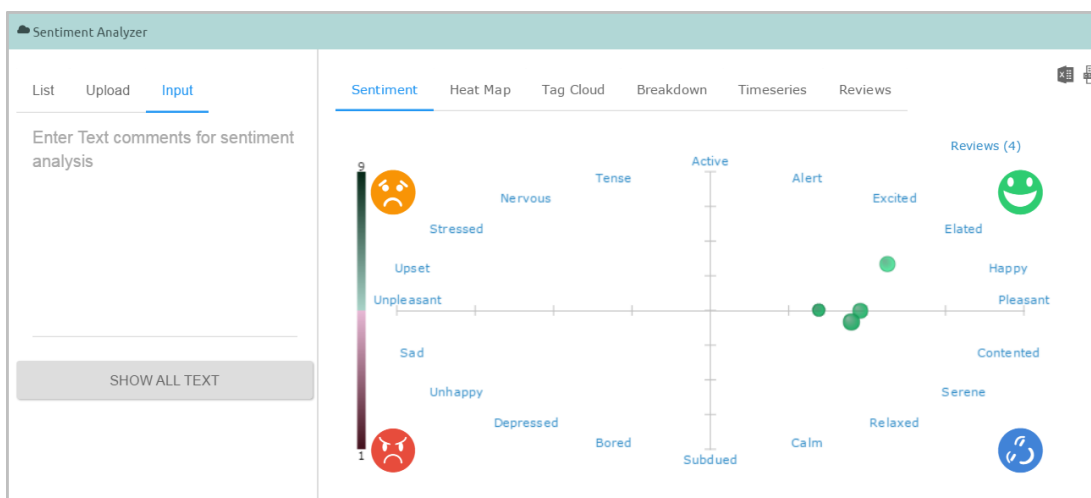
Note: Sentiment Chart opens by default when clicking on '**SHOW ALL TEXT.**'

5. Charts

This section explains various charts.

5.1. Sentiment Chart

The Sentiment Chart uses multidimensional scaling to position 20 emotional states, with '**pleasure**' plotted along the horizontal axis and '**activation**' along the vertical axis. It displays all the individual reviews in the form of circles.

The following parameters reveal significant information about the review sentiment:

- **Colour:** Overall valence or pleasure of the review is presented through the color. All the pleasant reviews are in green color and unpleasant in red.
- **Brightness**: Overall arousal of the review is displayed through the brightness of the circle. Active reviews are brighter, and subdued reviews are darker when compared.
- **Size and Transparency:** These two measures are to assure the assessment of individual review sentiment. More confident sentiment estimations are presented through the bigger size and less transparency of the circles.
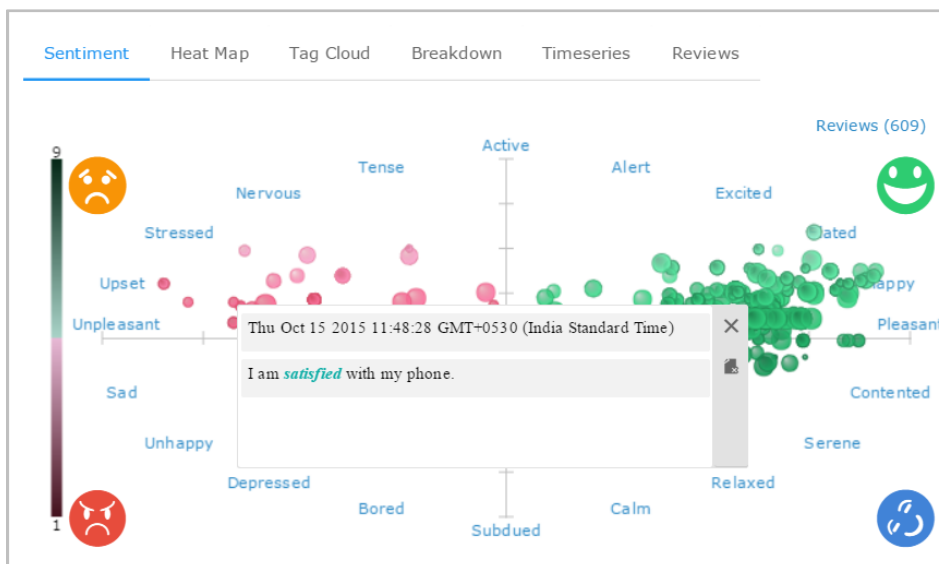
Hover the mouse over a review circle to reveal its body. Click on any review to generate a dialog box displaying the review details with a day, date, and time. ANEW dictionary terms in a review will be highlighted in Italics. It may open more than one dialog box while clicking on the dense areas (with more circles). The opening of more dialog boxes indicates that all the opened reviews carry either similar words or sentiments.

5.2. Heat Map Chart

The Heatmap chart displays various sentiment regions each containing some amount of reviews in it. It highlights dark red regions with many reviews and light blue regions with only a few reviews.
The emotional scatter-plot is subdivided into an 8 × 8 grid of bins representing a one-unit step in pleasure and arousal. The number of reviews falling within each bin is calculated and displayed using a specific color:

- **Red** colored bins contain more reviews than average
- **Blue** colored bins contain fewer reviews than average

- **White** colored bins contain no reviews
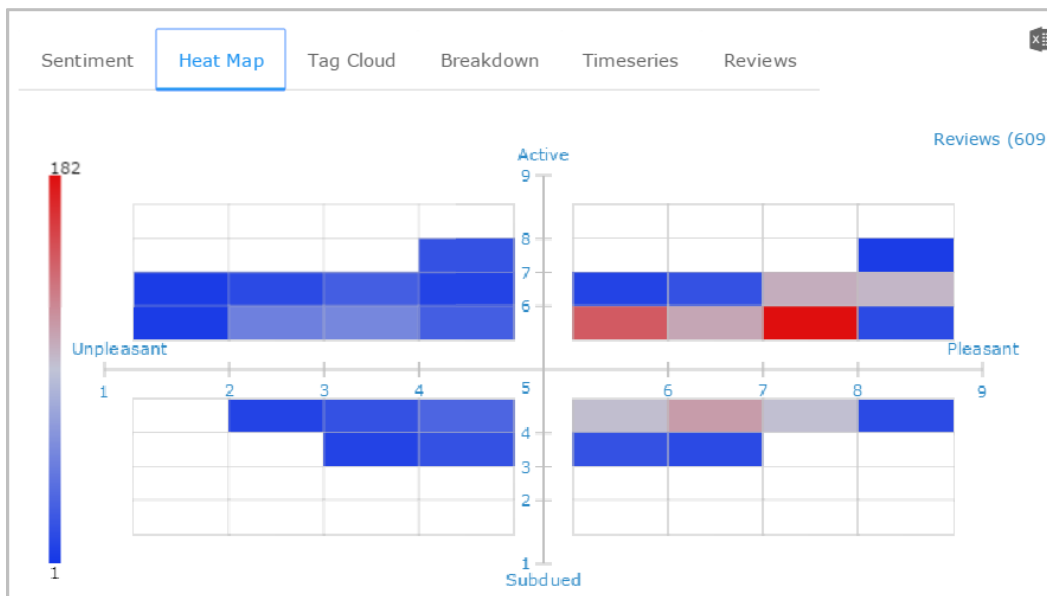
Stronger, more saturated colors lie farther from the average. Hover the mouse over a bin to know the number of reviews included in the bin.

5.3. Tag Cloud

The tag cloud displays frequently occurred terms. It uses the following parameters to reveal sentiments out of each term:

Size: Size of a term indicates how often it occurs over all the reviews. Terms mentioned in large size occur more frequently compared to the terms that are small in size.

Colour: Each term is colored based on the sentiment that it reveals/based on the revealed sentiment.

Four shades of colors are used to indicate different sentiments:
- Relaxed terms in dark green color
- Happy terms in a lighter shade of green color
- Unhappy terms in dark red color
- Upset terms in a lighter shade of red color

Hover the mouse over a term to reveal '**Lift**' and '**Confidence**' (frequency) count.

5.4. Breakdown Chart

The Breakdown chart displays a total number of reviews through different categories of a pie chart. Pleasant reviews are mentioned in green color and unpleasant reviews in red. All the reviews are split into four parts as per the revealed sentiments; each part is indicated through a different shade of color:

- Relaxed reviews in dark green color
- Happy reviews in a lighter shade of green color
- Unhappy reviews in dark red color
- Upset reviews in a lighter shade of red color
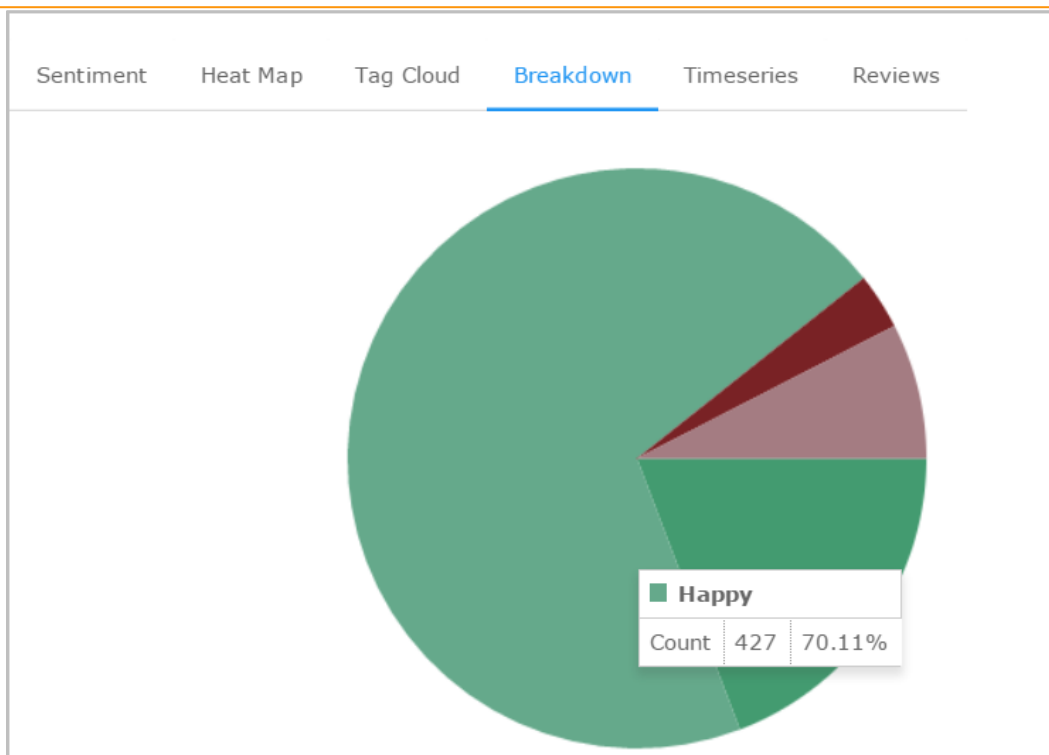
Hover the mouse over a pie to see the total number of reviews in that section.

5.5. Time Series Chart

The Time Series Chart uses column chart with slicer to display different reviews within the chosen range of time. The user can select a specific period by using a menu that is provided at the top. A dragger is provided below the chart to drag deep into the time slots when a wide range of time is chosen. The x-axis in the chart shows date and time for the collected reviews while Y-axis indicates total review counts.

Column slicer reveals sentiments by using a different shade of color as described below:
- Relaxed reviews in dark green color
- Happy reviews in a lighter shade of green color
- Unhappy reviews in dark red color
- Upset reviews in a lighter shade of red color
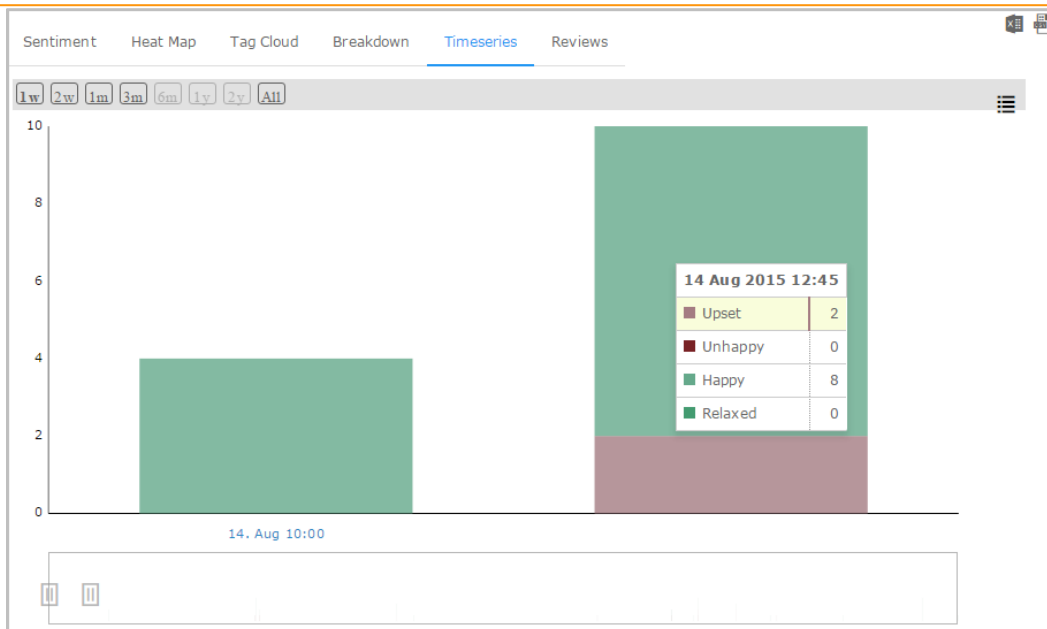
Hover the mouse over a column to see review details.

5.6. Review List

The review list contains the body of a review, day-date-time for a review, username, overall valence '**v,**' overall arousal '**a**,' and '**delete**' option. ANEW terms are highlighted in bold and colored either in green or red as per the suggested sentiments. The review list can be arranged in ascending or descending order by clicking on the column header. The user can avail term specific review list by inserting a term in the search box.

6. Signing Out

To log out from the Sentiments plugin users need to sign out from the BDB Platform. The following steps describe how to log out from the BDB Platform.

i)   Click the '**User**' icon 👤 on the Platform home page
ii) A menu appears with the logged in user details
iii) Click the '**Sign Out**' option
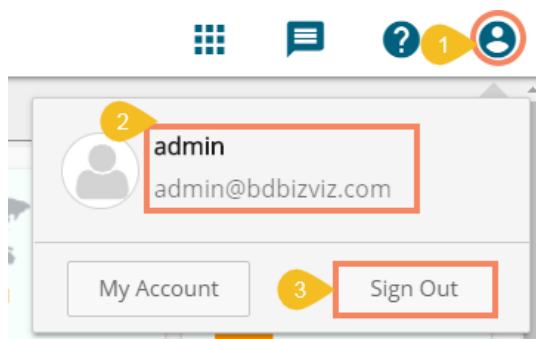
iv) Users can successfully log out from the **BDB Platform**

Note: A click on the '**Sign Out**' **option** redirects the user back to the '**Login**' page of the BDB platform.