

# Crystal Advanced Analytics

## User Manual

**Version:** 1.0

**Author:** Harshil Haumeer, [hhaumeer2014@my.fit.edu](mailto:hhaumeer2014@my.fit.edu)

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# 1. General Information

This user manual is intended for Crystal Advanced Analytics users. It covers the overview of the system, tutorials on how to use it, trouble shooting and other useful resources.

## 1.1 Introduction

CAA is a web application used to optimize business performance based on customers' reviews. It provides different data analysis tools for businesses to improve their services through customers' feedback (reviews, comments & ratings) retrieved from different social media platforms.

## 1.2 Tools

**PyCharm:** Used for backend development and api-endpoints

**BrightLocal:** Reporting Platform used for web scrapping.

**Angular5:** Front end Java Script framework.

**Machine Learning:** Used to train the system's classifier unit.

**Django 2.0:** Python framework used for backend implementation. Standardizes relation between database, model, API endpoint and view.

**Django Rest Framework API:** Links backend to front end using industry standard REST API protocol.

**Python 3.6:** Language used for implementation of system.

## 1.3 Features

**Live Data:** Retrieve and access real-time data from over 20+ social media platforms.

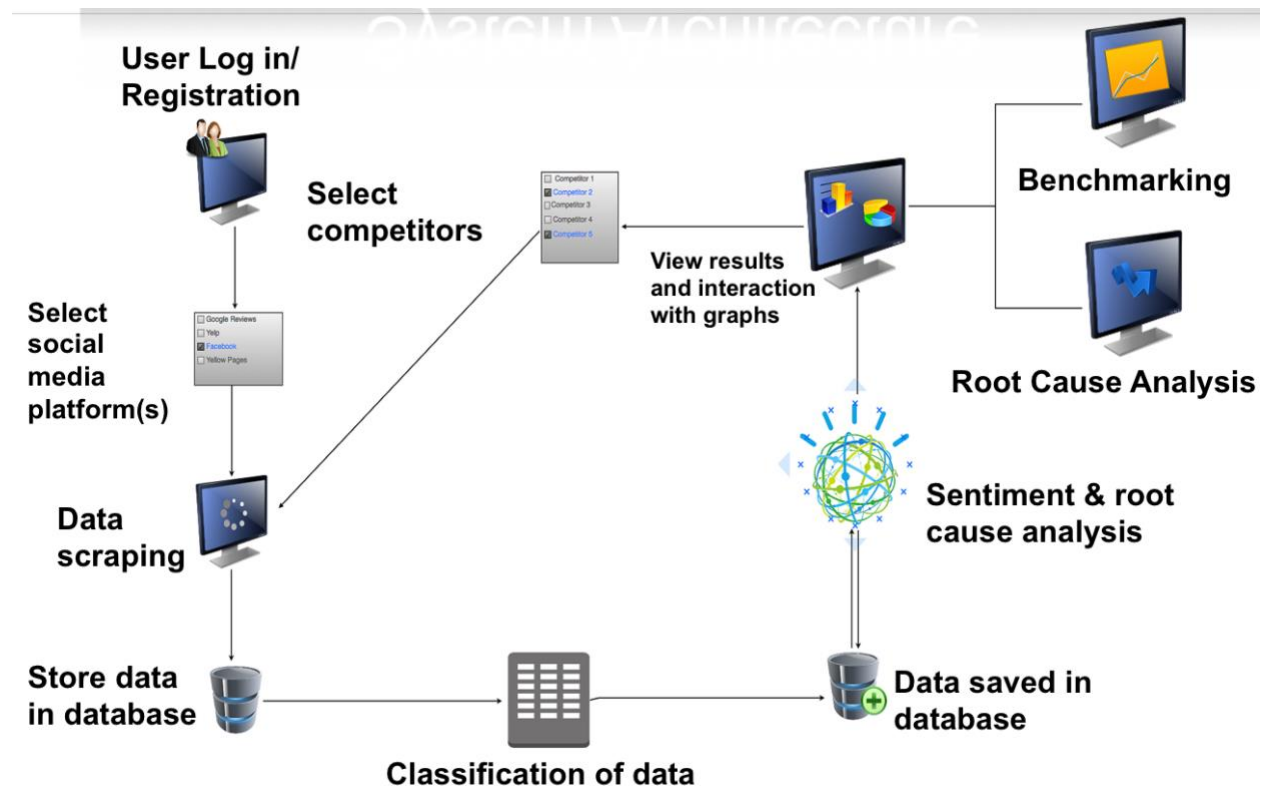
**Automated Data Classification:** Reviews retrieved from social media platforms are automatically classified into their respective categories for an easy service overview.

**Sentiment Analysis:** With our integrated sentiment analyzer which allows businesses to better understand their customers' sentiment expressed in their feedback.

**Root-Cause Analysis:** CAA identifies the root cause(s) for an over/under performance in particular service(s) which helps businesses understand what they are doing right/wrong, so they can maintain their service performance or fix the issue.

**Benchmarking:** Compare your service performance to that of your predominant competitors'. Have an insight of your competitor's customer feedback, all retrieved automatically to your dashboard.

## 1.4 System Overview



## 1.4 Intended Users

Crystal Advanced Analytics was designed for users with a business, organization or any kind of service that deals directly with customers. In order to use CAA, users must have a public social media account on