**Introduction:**

OpenFDA is a project making FDA data accessible to public. Launched on June 2, 2014, the goal of the project is to provide easy access to public data, to create new level of openness and accountability, to ensure the privacy and security of public FDA data, and ultimately to educate the public and save lives. The data is made publicly available through APIs which enables programmers to easily download and use it in applications. Since its launch, several new datasets were added.

OpenFDA allows access to data through API calls or direct downloads. The entire FDA data is

categorized into three categories – drugs, devices and food. The data for each category is available from its own endpoint. Each endpoint in turn have one or more endpoints which serve unique data.

The goal of this project is to analyze the Ophthalmic devices data from the devices endpoint of OpenFDA and visualize various trends of the variables.

**Overview of the Devices data:**

The devices endpoint is further divided into 8 other endpoints:

1. **Device adverse events:** Events like serious injuries, deaths, malfunctions and other undesirable effects associated with the use of medical devices are reported as adverse events.
2. **Device classification:** This dataset contains information such as medical device names, their product codes and their classification. The FDA has classified 1,700 unique deviced into 16 medical categories such as Cardiovascular devices, Ophthalmic devices, Ear, Nose and Throat devices.
3. **Device 510(k) clearances:** A 510(k) is a premarket notification made to FDA identifying a device to be at least as safe and effective to a legally marketed device that is not subject to PMA. This dataset contains details about original sponsors of product, receipt and decision dates, and administrative and tracking information of the devices.
4. **Device PMA:**
5. **Device registrations and listings:**
6. **Device recalls:**
7. **Device recall enforcement reports:**
8. **Unique device identifier:**

**Device classification:**

**Device 510(k) clearances:**

**Device PMA:**

**Appendix:**

**API calls**