**Heroku**

Heroku is a Platform as a Service (PaaS) that allows developers to build, deploy, run, and manage applications. It is supporting several programming languages like Ruby, Java, Python, Node.js, Scala and PHP. Developers use dependencies to deploy and run their application into Heroku where different dependency mechanisms vary across languages like in Python a **requirements.txt**, in Node.js a **package.json** and in java a **pom.xml** and so on. The dependency file and code of application provide information for the Heroku platform to build application and also use **Procfile** to declare app’s web server. It is good start off for those who want to learn software deployment and hosting and also free to use under different tier offers. We can easily deploy project on Heroku from GitHub or by installing Heroku CLI.

While there are a lot of problems that can rise with application build deployment. We should be aware of those problems and keep track of our dependencies. By using DevOps tool like BuildMaster to focus on and reduce the risk of failures. There are many errors which cause failure to deploy or run the application on Heroku:

* Lack of communication and approval
* Lack of security testing
* Before production, no testing environment
* Application code error
* Uninstall packages

We can track our errors or issues to look at our logs:

**$ Heroku logs --app our\_app\_name**

**Heroku Application Error:**

In our project “Text\_Sentimet\_Anaysis” we used different languages like Machine Learning, Python, HTML, Flask, Database, Web Scraping and API to build web page. We successfully deployed our app on Heroku, but it was showing application error after opening it. After looked at our logs, we found two errors which were blocking our project to execute on app. We installed all the dependencies packages and saved into **requirement.txt** file. Free tire Heroku has slug size (max 500M) to deploy dependencies, but after deploying our project it crossed the limit ( 626.4M) which was the main reason to giving application error. The second error we found that **pyspark** and **java**, after installing and running locally it was still giving error, because we need to install the java environment to run our app.py file. We tried to deploy and run our project on three different applications, but they were giving error too.

**Recommendations:**

To avoid these errors in the future, we should avoid using a lot of dependencies in our project and try to use under the limit of Heroku slug size. Always look up the Heroku logs after deploy application. We should run our application locally before deploying on Heroku platform and make sure that use the same environment in which we are working on.