# **Team Progress Check-in**

# Group 21:

Ankush Mandal Soujanya Ranganatha Bhat Tanmoy Purkait Raktim Mukhopadhyay Yash Vijay Manas Mahapatra

# **Getting Started:**

- To start with the environment setup, we created a git repository to facilitate versioning and easy collaboration for group members: The link to the repo can be found here: https://github.com/soujanyarbhat/DPS\_project.
- We used Slack Channel for discussion and sharing relevant ideas.
- We investigated to choose from the top 5 IDE's and text editors for Scala. The below link provides valid pointers on available IDEs and Editors: <a href="https://jaxenter.com/top-5-ides-scala-147093.html">https://jaxenter.com/top-5-ides-scala-147093.html</a>.
- We decided upon Intellij Community Edition as it provides a seamless approach to set the project and auto-installs sbt and other relevant plugins. The blogpost below mentions steps to Integrate Apache Spark, IntelliJ, and Scala: <a href="http://blog.miz.space/tutorial/2016/08/30/how-to-integrate-spark-intellij-idea-and-scala-install-setu-p-ubuntu-windows-mac/">http://blog.miz.space/tutorial/2016/08/30/how-to-integrate-spark-intellij-idea-and-scala-install-setu-p-ubuntu-windows-mac/</a>.
- Each of us followed the above steps although the installation was a bit tough as we weren't using
  the same operating systems, yet were successfully able to set up the environment on our local
  systems.

### Phase 1:

- Since most people in the group had few or no ideas on geographical and spatial databases, we kickstarted with researching on how the geospatial data is represented and extracted.
- Our target was to first have a good grip on Scala and then divide among ourselves how to proceed on this project with the implementation of the range and distance queries.
- We went through hands-on online materials on spark and scala. <u>Scala Essential Training</u>, <u>Apache Spark Essential Training</u>, <u>Just Enough Scala for Spark</u> served as good starting points.
- Currently, we are facing few hiccups during importing the Project template into Intellij as the build.sbt file fails to identify the artifacts under library dependencies
- The issue is suspected to arise because of incompatible version mismatch between scala,sbt, and JDK or deprecated features and we are looking into it.
- Once we were able to fix the minor issues and get the template code running we will be starting
  the discussion phase around implementations of ST\_CONTAINS and ST\_WITHIN functions and
  subsequently testing the same.
- We have divided the task amongst us by assigning a group of 3 each for each task for Phase 1.
- After the distribution of the tasks, we have successfully implemented and executed the code on our local systems.

#### **Task Distribution:**

#### Phase 1:

ST\_CONTAINS: Ankush Mandal Soujanya Ranganatha Bhat Tanmoy Purkait

ST\_WITHIN: Raktim Mukhopadhyay Yash Vijay Manas Mahapatra