

## BDA Lab Practical's List

| Practical No. | Title of the <b>Regular Experiments</b>  | Topics to be highlighted | CO Map |   | Link for study   |
|---------------|--|--------------------------|--------|---|--|
| 1             | Set up a Hadoop cluster and verify its functionality.                                    | Hadoop                   | CO1    | Hadoop and HDFS Fundamentals on Cloudera.       | <a href="https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_01384359222148300841533_shared/overview">https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_01384359222148300841533_shared/overview</a>  |
| 2             | Create directories and files in HDFS and perform read/write operations                   | HDFS                     | CO2    | Working with Files in Hadoop HDFS               | <a href="https://infyspringboard.onwingspan.com/web/en/viewer/html/lex_auth_01350159487646105612940">https://infyspringboard.onwingspan.com/web/en/viewer/html/lex_auth_01350159487646105612940</a>  |
| 3             | Develop and execute a simple MapReduce program to count word occurrences in a text file. | MapReduce                | CO2    | Developing a Basic MapReduce Hadoop Application | <a href="https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_0135015571521044487374/overview">https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_0135015571521044487374/overview</a><br><br><a href="https://www.youtube.com/watch?v=uH5y6nTo_04&amp;ab_channel=MaheshHuddar">https://www.youtube.com/watch?v=uH5y6nTo_04&amp;ab_channel=MaheshHuddar</a> |
| 4             | To install and configure MongoDB to execute NoSQL commands                               | NoSQL                    | CO3    | NoSQL and MongoDB                               | <a href="https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_0138418491962900485481_shared/overview">https://infyspringboard.onwingspan.com/web/en/app/toc/lex_auth_0138418491962900485481_shared/overview</a>  |
| 5             | Data Stream Algorithms Implementation (any one): DGIM/ Bloom Filter / Flajolet Martin    | Mining Data Streams      | CO4    | DGIM/ Bloom Filter / Flajolet Martin            | <a href="https://www.analyticsvidhya.com/blog/2021/06/beginners-guide-to-flajolet-martin-algorithm/">https://www.analyticsvidhya.com/blog/2021/06/beginners-guide-to-flajolet-martin-algorithm/</a><br><br><a href="https://www.youtube.com/watch?v=vrgPZUGQG9A">https://www.youtube.com/watch?v=vrgPZUGQG9A</a>   |
| 6             | Community detection algorithm  | Any Lang                 | CO5    | Girvan Newman Algorithm                         | <a href="https://www.youtube.com/watch?v=2KHfVp8HN_g">https://www.youtube.com/watch?v=2KHfVp8HN_g</a><br><br><a href="https://www.youtube.com/watch?v=F4RVBAGJcFY">https://www.youtube.com/watch?v=F4RVBAGJcFY</a>   |
| 7             | Social Network Analysis  | R                        | CO6    |   | <a href="https://www.youtube.com/playlist?list=PL4iQXwvEG8CQSy4T1Z3cJZunvPtQp4dRy">https://www.youtube.com/playlist?list=PL4iQXwvEG8CQSy4T1Z3cJZunvPtQp4dRy</a>  |
| 8             | Mini Project: One real life large data application to be implemented.                    | Mini Project             | All    |   | -  |