

Course:Major
Computer Science Practical-MongoDB and SCALA

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| Semester I | Credits: 2 | Subject Code: SMAJCCSP123555 | Lectures: 60 |
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Course Outcomes:

At the end of this course, the learner will be able to:

- CO1 – Understand syntax of SCALA programming language with different object-oriented features
- CO2 – Apply functional programming with SCALA
- CO3 – Learn to design database schema using Advanced Queries and CRUD operations of MongoDB database
- CO4 - Use MongoDB Aggregation framework.

Unit 1: SCALA Assignments

30

- Assignment on Arrays and Control Structures
- Assignment on Strings
- Assignment on Classes and Objects
- Assignment on List
- Assignment on Map
- Assignment on Set

Unit 2: MongoDB Assignments

30

- Assignment on Expression and comparison queries
- Assignment on Projection queries
- Assignment on Aggregation
- Assignment on count, limit, skip, count
- Assignment on Cursor
- Assignment on CRUD

References Books:

- Alvin Alexander, *Scala Cookbook*, O'REILLY publication
- Charlie Brooks, *Enterprise NoSQL for Dummies*, A Willy Brand, Marklogic Special Edition, ISBN: 978-1-118-83261-5 (ebk)

Websites:

- <http://nosql-database.org>



| Board of Studies | Department | Name | Signature |
|-------------------|------------------|------------------|--------------------|
| Chairperson (HoD) | Computer Science | Ashwini Kulkarni | <i>[Signature]</i> |

| Board of Studies | Name | Signature | |
|----------------------------------|-----------------------|---------------------------|---------------------------------|
| Chairperson (HoD) | Mrs. Ashwini Kulkarni | <i>Ashwini</i> 15/7/23 | |
| Faculty | Mrs. Swati Pulate | | <i>Swati</i> 15/7/23 |
| Faculty | Mrs. Smita Borkar | <i>Smita</i> 15/7/23 | |
| Faculty | Mrs. Shubhangi Jagtap | | <i>Shubhangi</i> 15/7/23 |
| Faculty | Mrs. Alka Kalhapure | <i>Alka</i> 15/7/23 | |
| Faculty | Mrs. Anjali Kale | | <i>Anjali</i> 15/7/23 |
| Subject Expert (Outside SPPU) | Dr. Aniket Nagane | <i>Aniket</i> 15/7/23 | |
| Subject Expert (Outside SPPU) | Dr. Manisha Divate | | <i>Divate</i> 15/7/23 |
| VC Nominee (SPPU) | Dr. Reena Bharathi | <i>Reena</i> 15/7/23 | |
| Industry Expert | Ms. Anjali Ingole | | <i>Anjali Ingole</i> 15/7/23 |
| Alumni | Ms. Pooja Pandey | <i>Pandey</i> 15-7-23 | |



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| Chairperson (HoD) | Computer Science | Ashwini Kulkarni | <i>Ashwini</i> 15/7/23 |