# St. Joseph's University

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## Project for "Data Analytics on Cloud"

### Submitted by:

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# INTRODUCTION

As many students come to our university, they partake in many activities. Through their hard work, calibre and excellence they ultimately expand their horizon with knowledge while aiming for a job and a better tomorrow. However, many students might not be aware of the value of sharing their resources and achievements with their juniors. Some might feel that their work is not up to the mark or it lacks appropriate support. To address these issues we have decided to build a repository with the vision to foster intellectual growth and collaborative learning within our college community. Our user-friendly interface makes navigating through various disciplines and topics a breeze, ensuring that you can effortlessly discover the latest advancements, breakthroughs, and insightful perspectives from your fellow students.

# OBJECTIVES

1. One-stop for all work done by students of M.Sc. Big Data Analytics

   Providing verified quality information to satisfy the users inquiry on any topic he/she wants to achieve results upon.

2. Building a community for resource transfer

   Facilitating the sharing of information in the hopes to make a chain of information exchange that would keep and deliver knowledge.

3. Platform to promote critical thinking

   By engaging with research papers and journals, students are encouraged to think critically, analyse methodologies, evaluate findings, and question assumptions.

# TECHNOLOGIES IMPLEMENTED IN THE PROJECT

1. Hardware Requirements: Developer

   - RAM: 4 GB or more
   - Processor: Intel / AMD processor

2. Hardware Requirements: User

   - Any device with a internet browser

3. Software Requirements: Developer

   - Provisioning and configuration: Terraform
   - Database: SQL / NoSQL (Amazon RDS / MongoDB)
   - Cloud hosting: Amazon Web Services
   - Website development: Python Django

4. Software Requirements: User

   - Internet browser which is script enabled

# MODULES / FEATURES OF THE PROJECT

The website consists of 8 modules. These are the individual components of the complete system that work in coordination to bring out the optimum desired result. The communication between these integrated modules lead to a synchronised working of the system.

The modules are as below:

1. Authentication Module
   The authentication module consists of the following functions:
   a. To sign into your account using email id and password.
   b. Reset password option for those who forgot their password.
   c. Redirection to sign up/registration module to create a new account.

2. Registration Module
   The registration module will take information from the new user that is required to uniquely identify and authorise them in the future. The types of user accounts will be:

   a. SJU BDA student: those who will be verified by the email they use for sign-up
   b. SJU non-BDA student: those who will be verified by the email they use for sign-up
   c. Non-SJU user: can sign-up with personal email-ID

3. Search Module
   The search module is the heart of our website. The results will give all projects/research papers that have an exact match/partial match with the search terms given. The user can then click on the relevant link in order to view details of the same (description module). We will also provide cards

4. Description Module
   This module will display the details of the project/research paper as posted by each SJU BDA student. The details of the project/research paper such as the title, abstract, detailed report (PDF), date of completion, links to any journal/conference where the relevant work has been published.

5. Payment Module
   The payment module will provide:
   a. Free Access for all BDA students
   b. Non BDA students from St. Joseph's University will get access through a discounted payment.
   c. Non SJU students have to pay the full amount mentioned inorder to access the files.
   d. The payment process will be through Razor Pay

6. User Profile Module
   The user module consists of the following functions:
   a. Contains the details of the author
   b. Contains the list of papers and projects done by the author
   c. Admin can preview and edit

d. Users can preview the list of papers and projects done by the particular author
e. SJU students will get access to mail the author
f. Author can update his/her profile on his desired needs

7. <u>Admin Module</u>
The admin module consists of the following features:
   a. Obtaining user data according to requirement.
   b. Administer the progression of information in the framework.
   c. Verifying the authenticity of posted information on the website.
   d. Adding and removing users according to requirement.
   e. Solve queries of users seeking information or giving feedback.
   f. Have access to edit the profile of the users if it is misled.
   g. Overseas payments / cash flow.

8. <u>Authorisation Module</u>
The authorisation module consists of the following feature:
   a. Ensures that only authorised individuals can access specific sections or perform certain actions.