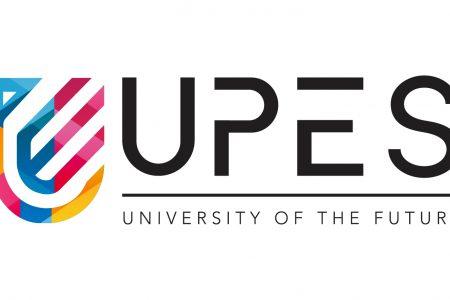
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**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES, DEHRADUN**

**BACHELOR OF TECHNOLOGY**

in

**COMPUTER SCIENCE**

Specialization in

**CLOUD COMPUTING & VIRTUALIZATION TECHNOLOGY**

**SEMESTER – VI**

**PROJECT REPORT OF**

**CLOUD APPLICATION DEVELOPMENT**

*Under the guidance of*

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**WEEK 4**

**SELECTING THE BEST CLOUD PLATFORM FOR THE PROJECT**

CONCEPTUAL REVIEW:

About the project application- The project name is “The Gym Fit Guide” which will be mostly a serverless web application. Through this application, the user will get the following benefits 1) It will be able to calculate the BMR(The basal metabolic rate (BMR) is the amount of energy needed while resting in a temperate environment when the digestive system is inactive Calculator of the person. 2)Responsive website which will also provide forms to send emails and to contact for personal training for trainers. 3)Will be able to provide diet and workout plan automatically according to the body type and goal of the user. 4)The application will be able to provide specific information of calories and micro-nutrients case studies and free e-books to transform body. 5) It will also contain videos and tutorials of exercise to support the specific goal of the body. Hence, this application will contain all the very important and curated resources to transform your body so that the user can monitor their Diet Easily, track their BMI, and can also contact personal coaches.

LITERATURE REVIEW:

This Gym web application is serverless which means Serverless architecture is a way to build and run applications and services without having to manage infrastructure. 1)The first reason is that you don't have to maintain a server and just focus on coding. 2)Second, it's actually "post-pay", with a serverless architecture, you only pay for the number of requests. If no one requests the system, you don't have to pay. 3)You don't have to choose hardware specifications. All you have to do is look at the amount of CPU, amount of RAM, and traffic, and manually tune the system according to the traffic. For this the AWS Application architecture will be used :- Where, the application architecture uses AWS Lambda, Amazon API Gateway, Amazon DynamoDB, Amazon Cognito, and the AWS Amplify Console. Amplify Console provides continuous deployment and hosting of static web resources including HTML, CSS, JavaScript, and image files that are loaded in the user's browser. JavaScript running in the browser sends and receives data from public internal APIs built using Lambda and API Gateway. Amazon Cognito provides user management and authentication capabilities to secure internal APIs. Finally, DynamoDB provides a persistence layer that allows you to store data using Lambda API functions.

FLOW CHART:

The flow chart of the serverless web application is:

1)Static Web Hosting

AWS Amplify hosts static web resources including HTML, CSS, JavaScript, and

image files which are loaded in the user's browser.

2)User Management

Amazon Cognito provides user management and authentication functions to

secure the backend API.

3)Serverless Backend

Amazon DynamoDB provides a persistence layer where data can be stored by

the API's Lambda function.

4)RESTful API

JavaScript executed in the browser sends and receives data from a public

backend API built using Lambda and API Gateway.

