**Major Task:**

1. **Create a Single Page Application (SPA) in Node.js**:
   * 1. Create Project Directory

mkdir click-me-app

cd click-me-app

* + Set up a new Node.js project using a framework like Express.js or a lightweight web server like http-server.
  + Create a single HTML page with a "Click Me" button that triggers an action.

1. **Host the Application in AWS**:
   * Set up an Amazon EC2 instance to host your Node.js application. Launch an EC2 instance using the AWS Management Console or AWS CLI.
   * Configure security groups to allow inbound HTTP traffic (port 80) to the EC2 instance.
   * Connect to the EC2 instance using SSH and deploy your Node.js application.
   * Install and configure a web server like Nginx or Apache to proxy requests to your Node.js application.
2. **Connect the Application with AWS Services**:
   * AWS Lambda: Create a Lambda function and configure an API Gateway to trigger the Lambda function upon a specific HTTP request.
   * Amazon SQS: Create an SQS queue and integrate it with your application. Send messages to the queue using the AWS SDK in your Node.js application.
   * Amazon SNS: Create an SNS topic and subscribe your application to the topic. Publish messages to the topic using the AWS SDK.
   * DynamoDB: Set up a DynamoDB table to store data from your application. Use the AWS SDK to interact with the table (e.g., perform CRUD operations).
   * Amazon RDS: Set up an RDS database instance (e.g., MySQL, PostgreSQL) to store data. Configure your Node.js application to connect to the RDS instance.
3. **Configure Autoscaling and Load Balancing**:
   * Set up an Application Load Balancer (ALB) or Network Load Balancer (NLB) to distribute incoming traffic across multiple EC2 instances.
   * Configure an Auto Scaling Group (ASG) to automatically scale the number of EC2 instances based on demand. Define scaling policies, thresholds, and instance configurations.
   * Set up health checks to ensure the load balancer directs traffic only to healthy instances.
   * Test your application's performance and monitor metrics to fine-tune autoscaling and load balancing configurations.