## Requirement Gathering and Analysis Phase Technology Stack (Architecture & Stack)

| Date          | 22 June 2024         |
|---------------|----------------------|
| Team ID       | SWTID1720433526      |
| Project Name  | Project - Book-Store |
| Maximum Marks | 3 Marks              |

## **Components & Technologies:**

| S.No | Component      | Description    | Technology    |
|------|----------------|----------------|---------------|
| 1.   | User Interface | Web UI         | HTML, CSS,    |
|      |                |                | JavaScript /  |
|      |                |                | React.js      |
| 2.   | Backend        | Application    | Node.js,      |
|      |                | Logic for      | Express.js    |
|      |                | backend        |               |
|      |                | processees     |               |
| 3.   | Database       | Data storage   | MongoDB       |
|      |                | and            |               |
|      |                | configurations |               |
| 4.   | Cloud          | Database       | MongoDB       |
|      | Database       | service on     | Atlas         |
|      |                | Cloud          |               |
| 5.   | File Storage   | File storage   | ASW S3, Local |
|      |                | requirements   | Filesystem    |
| 6.   | External API - | Integration    | Google Books  |

|    | 1              | with external | API         |
|----|----------------|---------------|-------------|
|    |                | APIs          |             |
| 7. | External API - | Integration   | Payment     |
|    | 2              | with external | Gateway API |
|    |                | APIs          |             |
| 8. | Infrastructure | Application   | AWS EC2,    |
|    |                | Deployment    | Docker,     |
|    |                |               | Kubernetes  |

## **Application Characterestics:**

| S.No | Characteresti | Description     | Technology   |  |
|------|---------------|-----------------|--------------|--|
|      | cs            |                 |              |  |
|      |               |                 |              |  |
| 1.   | Open-Source   | React.js,       | JavaScript   |  |
|      | Frameworks    | Node.js         |              |  |
| 2.   | Security      | JWT             | SHA-256, SSL |  |
|      | Implementati  | authentication, | / TLS        |  |
|      | ons           | HTTPS           |              |  |
| 3.   | Scalable      | Microservices   | Docker,      |  |
|      | Architecture  | architecture    | Kubernetes   |  |
| 4.   | Availability  | Loading         | AWS ELB,     |  |
|      |               | balancing,      | Auto Scaling |  |
|      |               | High            |              |  |
|      |               | Availability    |              |  |
| 5.   | Performance   | Caching, CDN    | Redis, AWS   |  |
|      |               | integration     | CloudFront   |  |