R V College of Engineering Department of M.C.A

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Product Catalog Portal with Microservices

The product catalog portal is a web application to improve the user experience for navigating

through an e-commerce website along with the use of microservices. Microservices are an

architectural way in which a software can be developed and the services and the software can

communicate over Application Programming Interfaces (APIs). Instead of having a single unit of

software composing of all the required features in one complete unit, microservices architecture

allows the software to house various independent services through various protocols that can run

independent of each other and improve the user experience. As web applications have their own

platform to provide microservices, it becomes easier for the application to modify them as required

because using the available tools, does not provide privileges in tool usages.

Since the portal will be responsive, will be performing database operations and render the same

over the front-end, technologies like Hyper Text Markup Language (HTML) and Bootstrap for the

user interface, NodeJS as the JavaScript framework for backend, and unstructured database

(MongoDB) for storage are used. Working with microservices architecture will require the use of

JavaScript packages. The web application will include the modules for authentication for admin, the

admin dashboard and services to provide additional functionalities for the web application.

The admin panel will be able to perform database operations on the products and its details with

rendering the same over the user interface. The independent services are the additional features that

will be provided to the web application to provide the admin, insights on the user interests, user

assistance through chatbots, newsletters so as to provide the subscribed users with updates on the

arrival of new products and report generation based on the user interactions over the website.

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