



EMERGING TECHNOLOGIES

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EMERGING TECHNOLOGIES, WHAT IS IT?

- IT IS AN E-COMMERCE B2C APPLICATION WHICH PROVIDES END USERS WITH THE LATEST AND GREATEST TECHNOLOGY PRODUCTS TO PURCHASE FROM.
- THIS WITH THE ADDED BENEFIT OF CYBERSECURITY RISK RATINGS ON WHETHER THE PRODUCTS ARE VULNERABLE OR NOT.



AGENDA

Features

Team Structure

Technologies used

How they are used

Project Outcomes

Live Demo

Challenges

Next Steps

Questions/Concerns

FEATURES

**Display
Technology
products**

**Indicators for
Cybersecurity
Risk Ratings**

**Display user
profiles**

**Display
Shopping Cart**

**Feature to add
more than one
quantity of the
same product**

**Feature to
remove product**

**Feature to show
the prices**

**Feature to
integrate
different
payment types**

**Feature to
process the
order**

**Feature to
download, print
and email
receipts**

TEAM OVERVIEW

| Name | Role |
|---------------------------------------|---------------------------|
| Priyesh Pandya | Technical Product Manager |
| Punith Agraharavalagerahalli Jayaramu | Software Architect |
| Hasan Ahmad | Software Engineer |
| Ermin Zeherovic | Software Engineer |
| Jennifer Sager | Software Engineer |

TECHNOLOGIES USED

Docker

Docker Hub

PyCharm

GitHub

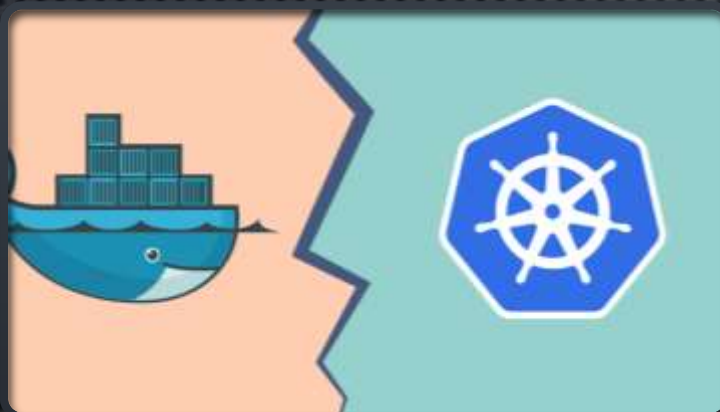
Lucido Flowchart / Visio

Trello

Discord

MS Teams

Kubernetes



CONTAINERIZATION AND ORCHESTRATION

- DOCKER (CONTAINERIZATION)
 - RECREATE ENVIRONMENT ON ANY MACHINE
- KUBERNETES (ORCHESTRATION)
 - MANAGE ALL THE CONTAINERS
- JENKINS (PIPELINE)
 - TIES WHOLE OPERATION TOGETHER
- ALL THIS ALLOWS FOR
 - SMOOTH DEVELOPMENT
 - MINIMAL DOWNTIME
 - BETTER ALLOCATION OF RESOURCES

PROJECT OUTCOMES AND GOALS

- BUGS CAPTURED
- CODE REFACTORED
- STRONGER TEAM COMMUNICATION
- BETTER PROFICIENCY AT NEW TECHNOLOGY
- UNDERSTANDING OF MICROSERVICE ARCHITECTURE

GOALS ACHIEVED

- CREATE AN APPLICATION RISK FREE OF VULNERABILITIES
- RAPID DEVELOPMENT OF PROOF OF CONCEPT
- INCREASED AWARENESS OF PRODUCTS
- DELIVER A LIGHTWEIGHT PROGRAM



LIVE DEMO

CHALLENGES

- IT WAS A CHALLENGE GETTING EVERYTHING TOGETHER AND WORKING
- NEW TECHNOLOGIES HAVE A LEARNING CURVE THAT WASTED SOME TIME
- SCHEDULE MISMATCHES LEAD TO A SOMEWHAT DELAYED COMMUNICATION
- DIFFERENT EXPERIENCE LEVELS LEAD TO A GAP IN ABILITY

NEXT STEPS

- IMPLEMENT A MORE USER-FRIENDLY INTERFACE AND GUI
- CREATE A BOUNTY PROGRAM FOR THE COMMUNITY TO REPORT VULNERABILITIES.
- RESOLVE ALL OUTSTANDING BUGS BY THE PROJECT DEADLINE.

QUESTIONS?