Professional Expression Assignment 2

CISC 640 – Operating Systems

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When it comes to the XYZ operating system it is agreed that the company should be using DevOps practices to support the product. By gathering data and creating metrics the company can use data driven decisions to create a DevOps pipeline that adds structure, value, and security to the XYZ operating system.

To begin, when designing this XYZ operating system DevOps pipeline it is important to keep in mind the concept of security. Bridging the DevOps team with the security team brings more visibility between the two and is referred to as DevSecOps. When designing the pipeline for this product the first step will be to implement as many security practices as possible. Traditionally it is thought that added security will slow down the production process and usability but

Visibility

Automated testing

Data mining metricsmined from machine data

It provides individual contributors the data they need to be responsible for their own work, accountable to each other and aligned with business objectives. It enables managers to make data-driven decisions about workload prioritization, resourcing, scheduling, performance and value delivery.

**Measure your speed of application delivery:**

**Measure the quality of your application code:**

key metrics may include the number and importance of defects, defect variance from release to release (or from team to team) and build/integration/deployment failures.

**Measure the business impact of application code:**

**Measure the human impact of DevOps:**

* Isolate “waste,” detect and correct slowdowns, and deliver applications faster
* Correlate test and QA outcomes to find more problems sooner and improve code quality
* React faster to detect and address problems that do get through to production; and
* Use real-time insight to measure business impact and iterate faster on good change

<https://devops.com/visibility-drives-data-driven-decision-making/>

How do you know if you are making the right decisions on your product or project? How do you know that you're measuring the correct metrics to determine success?

design the correct measurable indicators to build an understanding of your product, how to monitor those metrics over time, and how to build feedback loops to course-correct and determine the success of short-term initiatives and features.

DevSecOps

**Cultural resistance to security better to catch now**

**Cloud ops** (APIs, privileged credentials, SSH keys, etc.)

**Containers and other tools carry their own risks: people don’t scan their containers**

**Accept devsecops**

**Enforce policy**

**Prioritized automated tools before deployment**

**Secure access with DevOps secrets management**

DevOps security can enable a productive DevOps ecosystem for segmenting network

Microkernels such as Mach and MINIX only implement a bare minimum interface to bridge the gap between software and hardware. In a Microkernel, software such as device drivers and file systems are separate from the kernel,

, the move to a data-driven culture lets you leverage vital business metrics to minimize risks.

n Time to Resolution is the ultimate customer-facing metric, but it can be difficult for teams to take sole responsibility for the results you see there. But combining MTTR with MTTA should give you a clearer picture of how your team is contributing to customer satisfaction. Once everyone is working with the same customer-oriented goals in mind,

Give a brief but informative paper on the structure and corresponding value of DevOps for

the support of XYZ operating system security. Include examples of data driven decisions

that are supported by DevOps.

Work Cited.

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