Profile Snapshot

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Project: P406, Universal Studios
Role: Devops Lead
Location: Orlando, FL

Project P406,-

Phase 1 of P406 was a step aimed at enhancing the guest experience by revamping current technology stack for existing parks (Island of Adventure and Universal Studios) and rolling out new tech and features for a new water park that just got opened recently (Volcano Bay).First phase of P406 is now complete and under Phase 2, the plan is to take the enhancements developed under P406 in Orlando and apply it other Universal Theme Parks locations such as, Hollywood, China and Japan.

DevOps Space

From a higher level, P406 is an echo system based on some ~30 micro services, e-commerce, Mobile apps and merchandise web site. The website and mobile apps interact through these micro services which in turn talks to backend commerce and guest management systems.

My Job :

Automation of Infrastructure Components

As DevOps @UO, we were required to automate the installation of infrastructure components to provision the environments in an automated and timely fashion. To this end, we used uDeploy/Ansible/chef/shell scripting/python etc to automate the provisioning of environments. Some of the key components whose installation were automated are :

- MDM AE
- ISAM
- MDM CE
- Websphere Commerce
- Cloudant
- BPM
- LDAP Servers
- Unica
- Interact
- SPSS
- CNDS
- Zookeeper
- Kafka

In addition to above, we also wrote scripts to automate the periodic maintenance of environments. 406 being a Linux shop, most of the scripts were written in shell or python. Some of the key highlights are :

- Automated couchdb indexes deployment using a custom python script
- Automated data migration from legacy db to couch db using a custom python script
- Automated cleanup of legacy db using a custom python script
- Automated nightly backups of ldaps

Continuous Integration and Delivery

Another aspect of our job is automate the build and release lifecycle of 406 development cycle. We use various tools to accomplish this.

Build :

Automated builds are setup in uBuild to kick off as soon as a change is detected in GIT in any of the 28 micro services code base. At the build time we have also integrated automated static code analysis, updation of respective defect ids in Rally and publishing unit test coverage results.

Deploy :

Once a build is successful in uBuild, we kickoff an automatic deployment of that build to dev. From there its picked up by QA and promoted to QA Env and it goes into automated CI Cycle.
In udeploy we use environment gates to validate the promotion of a build through different environments based of the pass/fail status of automated Smoke/Regression tests against those builds. The promotion is controlled via automated approvals on each env.