Online DevOps

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Team DevOps
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Today's Agenda

- DC Sprint 1 Report
- DC Sprint 1 Retrospective
- Introducing CICD
- Tracking Coursework Progress
- Sprint 2 Planning and Discussion

DC Sprint 1 Report

Delivery of Work

Sprint Goal: **(Approx. Story Points Estimation: 6)**
DC-1: Setup JIRA & enable GitHub Integration
DC-5: Display Correct Answers after User Completes a Quiz
DC-10: Knowledge Share Session and Technical Support

Sprint Report: **(Approx. Story Points Estimation: 10)**
Completed Issues:
DC-1: Setup JIRA & enable GitHub Integration
DC-3: User Authentication
DC-5: Display Correct Answers after User Completes a Quiz
DC-6: Display Score Results to the User (Count of Right & Wrong Answers)
DC-7: Display Attempted Wrong Answers to the Users
DC-10: Knowledge Share Session and Technical Support
DC-12: Improve Aesthetics of Implemented Framework

Moved to DC Sprint 2: DC-2, DC-4

DC Sprint 1 Retrospective
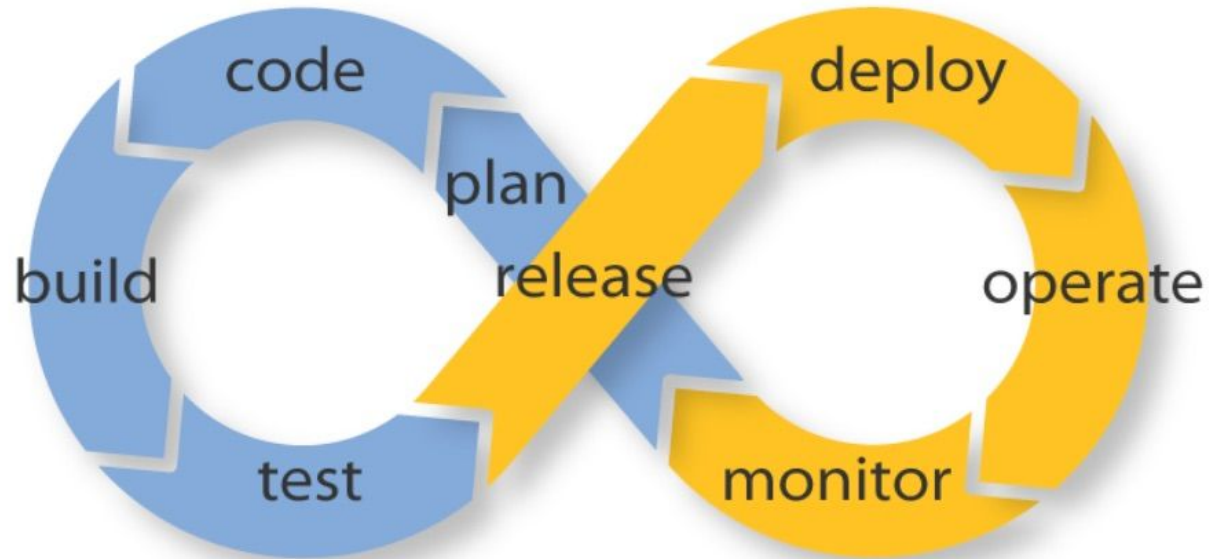
What went well?

What went wrong?

How can we do better in next Sprint?

**Please fill out this form:
https://docs.google.com/document/d/1_k9RWwG8zicckckAMm0urLoaecUA6oYQuk7zosPRm1g/edit

Introducing CI/CD

Implement Part of CI/CD

Changes in our existing workflow (Continuous Deployment!)

- Implement basic workflow of CI/CD without using much tools.

  **We can design more robust pipeline in future as the course goes!

- Developers frequently integrate their code into a main branch of a Online DevOps repository.

  **If the change is very small. Like we did in last 3 days!

Release your code in small working batches to production.

- If the change is very large, needs more time (>2 Weeks) to develop and is affecting the existing working in production → Normal Branching Workflow, but make sure you are merging branch to master in small batches (Small Batch Release).

Implement Part of CI/CD

How to work on this?

- First, always make sure you have latest version of master:

  git pull origin master

  git submodule update --init → If you have forgot to import utils

- Make your changes and test locally: (Make use Docker Container to test as it has preset configs)

  make container → This will build a docker image

  ./devops_container.sh → This will run your container

  ./local.sh → Run this inside your container, this will start the server locally

- Once tested successfully, exit your container and push to prod:

  make prod → This will push your code and migrate it to Production Server

Implement Part of CI/CD

Sample Screenshot of hosting server locally using Docker

```
[Akshay-Tambe-Mac:OnlineDevops akshaytambe$ make container
docker build -t devops docker
Sending build context to Docker daemon  2.048kB
Step 1/6 : FROM python:3.6.0
 ---> a1782fa44ef7
Step 2/6 : RUN pip install --upgrade pip
 ---> Using cache
 ---> daba0c9cd872
Step 3/6 : ENV DJANGO_VERSION 2.1
 ---> Using cache
 ---> 1798bdf1b117
Step 4/6 : RUN pip install django=="$DJANGO_VERSION"
 ---> Using cache
 ---> 71dce343305b
Step 5/6 : RUN pip install django-extensions
 ---> Using cache
 ---> 7eb2f30fc410
Step 6/6 : WORKDIR /home/DevOps/
 ---> Using cache
 ---> 7f9f9c538934
Successfully built 7f9f9c538934
Successfully tagged devops:latest
[Akshay-Tambe-Mac:OnlineDevops akshaytambe$ ./devops_container.sh
Error: No such container: devops
[root@89261bfc49d0:/home/DevOps# ./local.sh
Performing system checks...

System check identified no issues (0 silenced).
September 19, 2018 - 17:10:07
Django version 2.1, using settings 'mysite.settings'
Starting development server at http://0.0.0.0:8000/
Quit the server with CONTROL-C.
^C
[root@89261bfc49d0:/home/DevOps# exit
exit
Akshay-Tambe-Mac:OnlineDevops akshaytambe$ make prod
```

Implement Part of CI/CD

Advantages

- **Product Owner (Prof. Callahan)** will be able to see changes in Production more frequently and give feedback to us more quickly.

- **Features** are quickly delivered to users, and any defects that become evident can be handled promptly.

- **Reduce workflow cost** for small releases. (You don't have to wait to get approvals from me for small deployments)

Tracking your Progress

The DevOps Coursework Rough Grading Estimation

- **Development Work (Approx. 60% of your grade)**

  60 Points → Weekly Commits

  **Will be graded holistically by TAs and Professor considering the contribution at the end of semester

  60 Points → Project Presentation

  60 Points → Code Quality

  60 Points → Code Quantity (Your % of Contribution in the Project Commits)

  60 Points → Project Results (Quality of delivered results)

- **Tests during the semester (Approx. 20% of grade)**
- **Final Exam (Approx. 20% of grade)**

Important Note: The above structure is just to give idea of grading for the students and might change as the course goes. Professor is yet to finalize the complete grading structure.

Sprint 2 - Planning & Kickoff
(19th September - 2nd October)

** We will take approval of Goals from Product Owner after Planning to make sure the expectations are met!

Main Goals

- Enhancements in Quiz Framework (Randomizing Questions)

- Monitoring Options

- If possible more feature in Quiz framework

- User Interface Enhancements

Team Suggestions **(Will be updated after discussion)**