Getting Ready for the Project 1 Assignment

Due September 22nd

Assignments, Announcements, and Communications

- We will make all course communications, announcements, assignments, etc through Canvas.
- Canvas will be the definitive source for information on assignments, due dates, etc.
- All course slides and supporting material will be posted at http://courses.airavata.org/.
- All course lecture topics will be posted at http://courses.airavata.org/
- All assignments will use GitHub.

If you have any questions or concerns, see us during office hours 3-4 pm Tuesday and Thursday or after class.

Informatics East 226 B or Informatics East 150

Project Prerequisites and Logistics (1/3)

- Everyone needs to be on a team
- You choose your teammates
- Each team should have 3-4 members.
- Choose a team with balance:
  - Different programming languages,
  - Web experience, DB experience,
  - UNIX/Linux system admin experience,
  - Quality Assurance and Testing experience, etc.
- We will help fill out teams, resolve issues, ensure balance, etc

Project Prerequisites and Logistics (2/3)

- Everyone needs a GitHub account
- Create one if you don’t have one.
- Go through GitHub tutorial material if you aren’t familiar with how this works.
- We’ll have more to say about proper use of GitHub in a future lecture.

Project Prerequisites and Logistics (3/3)

- Report your teams through Canvas
  - Tell us who is on your team, each persons areas of strength, and each
  - You will need a team name
  - You will need to report your team members' names and GitHub usernames.
  - We will add each of you to a project under a GitHub umbrella organization for the class
- We will post this next week as a zero point assignment

Project 1: MicroServices with DevOps

- Use Case: Weather Forecasting
  - We review in detail next Tuesday, August 30th
- Continuous Integration and Deployment
  - All services need to build, test, and deploy on Amazon Cloud Services
  - We will provide you with the accounts you need.
- APIs: REST, Thrift, Swagger, etc
  - You will need to provide an API
- Inter-service Communication
  - You will need to provide a mechanism (messaging, RPC, REST calls, etc) for your services.
- Sample Web Interface

Project 1: MicroServices with DevOps

- Tools & Technologies
  - At least 3 programming languages (one for the UI, at least 2 distinct ones for the server components).
  - Amazon EC2
  - Any database
  - Apache Thrift or Apache Wink for Service Interfaces.
  - Travis-CI for Continuous Integration
  - Amazon Codedeploy for Continuous Deployment

Grading

- Each project will be judged on ~4 quality attributes. The number will vary by assignment
- To get all points, the project must demonstrate all attributes to the grader.
  - The grader must also be able to easily install and test all software by following documentation for the milestone in the team's GitHub Wiki.
  - If the grader can't get your code to work, you can resubmit.
  - Each resubmission is -1 point (out of 10 points).
- Each student on the team will submit a report describing what they did
  - Give a percentage of effort for each attribute
  - Provide auditable proof via links to issues and commits on GitHub
- Instructors will review grades with the graders.