

You have been offered an interview with -----<Fill your company here>----- . The format of the interview is that you are given time till August 5th 11.59 pm to complete a project. On August 6th, your team is expected to present a 5-minute presentation and answer 5 minutes of Q&A. (Of course, your professor would allow you to attend this interview and let you miss the class ☺). Your contact at the company tells you the following about this interview.

1. You researched -----<Fill your company here>----- and you found that they are into -----<See Team assignment sheet for topic assignment for your team>----- . The company asks you to present a project on a topic relevant to their business. The also provide you some tips on the kinds of things the company expects you to be working on and asks you to present a project that involves the following:
 - a. You can use any publicly/ privately (if your company permits) available dataset for this project. Note that the dataset should be large enough, relevant to the topic of your assignment, and captures the spirit of the application. Also, since this is an important interview, you would treat data selection seriously.
 - b. The company manages a lot of data and must see how you would do data-preprocessing and cleansing
 - c. It also uses algorithms for prediction, classification, clustering etc. and would like to see how you apply these algorithms for datasets. But they are also open if you cover other topics discussed in class (this includes topics presented during student presentations such as sentiment analysis, text analysis etc.)
 - d. The company has recently adopted Microsoft Azure Machine learning studio and would want you to demonstrate your expertise in its use this for this project.
 - e. In addition, the company heavily uses R and Python blocks and wants you to illustrate how you would integrate the within Microsoft Azure
 - f. The company has a design team which builds the algorithms using Microsoft Azure Machine learning studio and deploys it as a web service. The IT team builds a web-based application which invokes this web service. For this project, the company expects you to demonstrate both capabilities for the demo on August 6th.
 - g. Of course the company cares about originality and creativity. It wants you to start the project from scratch and would seriously prohibit you using a pre-existing Microsoft Azure template from the gallery to do the demo. If you reuse an existing template, you can say bye-bye to this job **AKA ZERO IN ASSIGNMENT 3**. Also, you can't use any of your previous assignments
 - h. The company also has established processes for design, development and deployment and treats them seriously. It expects you to formally put together a design document which illustrates the design of the algorithm, the web service and the user interface in the design document. The company uses balsimiq for mockups but you can use any other free tool(<http://alternativeto.net/software/balsamiq-mockups/>) to formalize the design.
 - i. The company also cares "what" your project does. Not just "how". You should be able to discuss the benefits of your application. This means you have to research some aspects of why the project is relevant for -----<See Team assignment sheet for topic assignment for your team>----- . Just don't use all algorithms and methods you know. You should be able to justify use of the algorithms. Also, evaluate the performance of your algorithms.

If you choose to deploy multiple algorithms for the same problem, you could design the workflow that way or you can deploy multiple web services.

- j. For the demo, you can use a few (1-5) slides but spend most of the time on your demo.
- k. You should share this demo with the team. To facilitate that, here is the recommended practice:
 - i. Create a outlook account for your team: For example **Team 1** can create info7390Summer2016Team1@outlook.com.
 - ii. Use this login for your project
 - iii. Share the email id and password when you submit the project.
 - iv. Don't use this email id for anything else or share it with other teams since you will be sharing this email and password when you submit the deliverables.
- l. You cannot collaborate with other teams. You may ask questions to Prateek if you need clarifications on Azure functionality. But also be independent and use google/bing. Most questions are answered on tutorials that are online.
- m. You are expected to fill out a survey to be sent out in the next day/two about the choice of your project.
- n. The deliverables for the project are:
 - i. Design document with mockups, screenshots and explanations
 - ii. 1-5 slides
 - iii. Working Microsoft Azure experiment with login and password
 - iv. Source code for your web app
 - v. Demo of the working web app. You could host it on <https://www.openshift.com/pricing/index.html> or AWS <https://aws.amazon.com/education/awseducate/> or Azure <https://www.dreamspark.com/Product/Product.aspx?productid=99>

Assignment topics:

Company area	Team
Marketing Analytics (Retail, campaigns etc.)	1
Financial Analytics	2
Network Analytics (networking, wireless, etc.)	3
Social media Analytics	4
Healthcare Analytics	5
e-commerce Analytics	6
Government (Public data analysis, data.gov etc.)	7
IOT analytics	8
Economics Analytics	9
Energy Analytics	10