

# IT 5443 Web Technologies and Application Development

## Research Paper Guide

*Spring 2019*, by Jack Zheng

### Overview

In this project, each student group will collaborate on producing a research paper focusing a particular Web related concept, technology, or application.

One of the major outcomes of this course is to develop a topic research paper through investigations done by students themselves. This project is designed to guide students to have a more solid and deeper understanding of the field of web technologies and applications. As a graduate student, the skills of research and writing demonstrate higher level of critical thinking and the ability to synthesize and integrate knowledge. It greatly helps student to establish a mature process when examining an emerging or an unfamiliar issue in depth.

### Team building and topic selection

This is a group project. Each group consists of **two to three** students. You need special permission if you are doing the project alone. If any team or collaboration problem arises, you may regroup as you wish. Please build the team among yourselves and then consult with the instructor about your intended topic. I will open the group tool in D2L so you can sign up for group there.

- a. Use the D2L group tool to sign up for groups yourself. You may use the discussion board or any other means to discuss group formation.
- b. Once the group is determined, please discuss the topic you would like to research on. Topics should be related to Web technologies and application development. You can discuss with the instructor to get some ideas.
- c. Submit a brief topic overview to the research topic assignment box by the due date (one per group). Note you cannot see the assignment box if you have not signed for a group in D2L. The overview should briefly introduce the topic, the objective of the research/paper, and preliminary outlines. This assignment will be graded with comments. 1 means approval; 0.5 means revision needed, and you need to revise based on comments and resubmit until you get 1.

### Paper development

- a. This research focus more on the literature research part, which is usually the first part of a research work. It emphasizes what has been done in the field, with some kind of synthesis and analysis like comparison, categorization, theoretical assessment, etc. This is an important phase to discover research opportunity and identify research values and contribution.
- b. The paper should have about 3000 to 4000 words, including all content.
- c. The paper structure and formatting should be based on the IGI Global Encyclopedia Article Guidelines at (a copy is attached):  
<http://www.igi-global.com/publish/resources/encyc-organization-and-formatting.docx>
- d. Some sample papers are provided for your reference, including the following two by the instructor.
  - <https://www.researchgate.net/publication/272815693> Web Analytics Overview
  - <https://www.researchgate.net/publication/265685771> Web Navigation Systems for Information Seeking
- e. Your research should go beyond the course coverage, bringing in new contents and ideas.
- f. You may discuss your work plan with the instructor before starting your research; and you are encouraged to do so often during your research and preparation.
- g. Use the web search effectively to gather materials related to your topic. Develop some sub-topics in a coherent and logical way. Think about and understand the materials you are going to present.

## Submission

Submit to D2L the completed paper by the due date. Each group submits only one copy.

## Grading

There are 20 points allocated for the project (1 point for the timely submission of your topic overview). The grading will be completely based on the paper itself. Each member of the same group will receive the same grade. High impact evaluation considerations:

- Have you done a good research and study? How much thinking have you put into your paper?
- Informative; with abundant facts and related information.
- Include both concepts and examples/practices.
- Topics clearly and logically developed and presented.
- References are properly included.
- Analysis, beyond simply presenting facts.
- Reasonable arguments with good support and examples.

## Rubric

Score	Summary	Rating Description
>=18	Outstanding work; beyond expectation.	Excellent research. Thorough and systematic introduction of the subject. Outstanding critical thinking and synthesis of knowledge. Insightful original ideas and contribution of knowledge. Abundant references. Excellent writing and logical flow. Completely followed the structure and formatting requirements.
16-17	Good work; meet expectations	Good research. Thorough introduction of the subject. Good amount of critical thinking and analysis. Abundant references. Good writing and logical flow. Completely followed the structure and formatting requirements.
12-15	Adequate work;	Good research. Good coverage of the subject, but lack of major critical thinking and analysis components. Enough references. Adequate writing and logical flow. Mostly followed the structure and formatting requirements.
<12	Lack of effort.	Poor research. Not enough coverage of the subject. Lack of critical thinking and analysis component. Missing references. Poor writing and logical flow. Poorly followed the structure and formatting requirements.

**Note: this guide tries to provide as much information as possible. But there are always unexpected issues. Please try to communicate with the instructor if there's any question or concern. Thank you.**