Title (Units):	**COMP4908 Data Media Project I (3,0,9)**

Course Aims: The objective of the project is to enable students to carry out a piece of highly independent work which could be an analytics and/or visualization system designed for data acquired from online information sources, or a research study on issues related to the data acquisition, analytics, as well as presentation and communications with end users.

At the end of the system development, students will be able to demonstrate their mastery of course materials they have learned from the programme and their ability to apply them in the project.

At the end of a research study, students will demonstrate the ability to understand, criticize and analyze one specific topic/problem with new insights or findings in the field of data acquisition, analytics, as well as presentation and communications issues with end users. The originality shall be shown either in the discovery of new facts or theories or by the demonstration of innovative, critical thinking.

Prerequisite: Year IV Standing in Computer Science

Course Intended Learning Outcomes (CILOs):
Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Analyze, design, and implement a system to solve a problem using a principled methodology (for data acquisition, analytics, as well as presentation and communications with end users), or explain the actual process of conducting a research study related to data, media and communications
	Professional Skill
2	Go through a complete study involving a system design and development or a research process related to data, media and communications, and manage a project individually and produce individually a complete technical report/system with all stages of a project documented
3	Identify problems and propose (a) solution(s) to solve the problems and integrate knowledge learned and acquire knowledge from additional sources for solving difficulties encountered in a project
4	Communicate effectively via oral presentations
5	Develop time management skill for finishing and presenting an individual project by going through a series of checkpoints with deadlines and a presentation session with strict time limit
	Attitude
6	Exhibit self-awareness and professional attitude in one's capability to work on a project individually from initial topic selection, up to final project presentation and delivery

Calendar Description: Students will carry out a piece of highly independent work, which could be an analytics and/or visualization system designed for data acquired from online information sources, or a research study on issues related to the data acquisition, analytics, as well as presentation and communications with end users, under the supervision of a faculty member. A project report and an oral presentation/demonstration are required upon successful completion of the project. Other deliverables for research study may be a research paper or research prototype.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1, 2, 5	Students will be guided by the checkpoints described in the project handbook and to fulfil the requirements of all stages in the project.
2, 3, 6	Students will identify a problem of a system design and development, or a research study. Then they will propose and implement solutions based on the knowledge and techniques learned in this programme and/or from other sources.

| 2, 4 | Students will conduct regular meetings with a supervisor to discuss and arrange various project tasks. Students will give an oral presentation of the project, and demonstration and/or poster session. |
| 4 | Students will give an oral presentation of the project, and demonstration and/or poster session. |

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous Assessment	30%	5, 6	This category covers the assessment of the attitude of the students, the amount of effort the student has put into the project, self discipline, and the general management skills in the project development process. The ingenuity of development and creativity towards achieving the project objectives are considered. The progress reports are also assessed in this category. This category is assessed by the Supervisor only.
2	Project Report	50%	1, 2, 3	[For system design and development projects] The grade for this category reflects the quality and the amount of completed work including those of the final report and, if any, the system. Student's ground work, and identification and analysis of the problem will be graded in this category. This category also assesses the efficiency and robustness of the solutions. A balance between completeness of the project and difficulty of the project will also be taken into consideration. [For research studies] The grade for this category reflects the quality and the amount of completed work including those of the final report and, if any, the research prototype, algorithms, surveys and experimental evaluation.
3	Presentation	20%	4, 5	This category includes oral presentation of the project, and demonstration and/or poster session, if applicable. Communication skills are emphasized.

Assessment Rubrics:

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
Methodology	• Use appropriate methodology with a high degree of effectiveness in executing all phases	• Use appropriate methodology with a considerable degree of effectiveness in executing all phases	• Use appropriate methodology and some phase(s) incomplete	• Use inappropriate methodology and skip some phase(s)	• No methodology is used
Problem Solving Skills	• Have a full picture of the problem and recognize its focus • Able to propose candidate solutions and	• Able to understand the problem clearly and recognize its focus • Able to propose a good solution	• Able to identify a problem and recognize its focus	• Able to identify a problem, but could not understand its focus	• Unable to identify a problem

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
	• choose the most appropriate one		• Able to propose a satisfactory solution	• Cannot propose a satisfactory solution	
Creativity	• Highly creative • Able to suggest a number of original and appropriate ideas	• Some degree of creativity • Able suggest some original ideas	• A little creativity • Able to suggest some general ideas	• Only borrow or copy others' ideas	• Unable to suggest any idea
Professional Skills	• Can effectively use state-of-the-art technologies to develop the system or effectively use state-of-the-art techniques to carry out the research study	• Can effectively use IT technologies to develop the system or effectively use relevant techniques to carry out the research study	• Use IT technologies to develop the system or use some related techniques to carry out the research study	• Use some less appropriate IT technologies to develop the system or use some less appropriate techniques to carry out the research study	• Cannot use appropriate IT technologies to develop the system or cannot use appropriate techniques to carry out the research study
Software Deliverable	• Complete all functional requirements • User interface is very helpful and easy to learn and use • Fully reliable and secure	• Complete most of the functional requirements • User interface is easy to learn and use • Mostly reliable and secure	• Complete adequate functional requirements • User interface is understandable • Minimally reliable and secure	• Complete minimal functional requirements • User interface is difficult to use and learn • Unreliable and unsecure	• Complete only very few or none of the functional requirements • User interface is confusing • No concern of reliability and/or security
OR Reports on Research Study	• Complete all the tasks needed for the research study • The scope of the research study is comprehensive. • The research results are correctly	• Complete most of the tasks needed for the research study • The scope of the research study is reasonable.	• Complete an adequate number of tasks	• Complete a minimal number of tasks	• Cannot complete a minimal set of tasks needed for the research study

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
	analysed and rigorously discussed.	• Most of the research results are correctly analysed and reasonably discussed.	needed for the research study • The scope of the research study is acceptable. • A reasonable portion of the research results are correctly analysed and discussed.	needed for the research study • The scope of the research study is minimal. • A minimal portion of the research results are properly analysed but the findings are not much discussed.	• The scope of the research study is insignificant. • The research results are either not or incorrectly analysed
Report and Documentation	• Fully document the project • The contents are arranged logically and clearly linked to each other • The writing is free or almost free of grammatical/spelling mistakes • Appropriate references are cited properly to support claims	• Mostly document the project • The contents are arranged logically and are usually clearly linked to each other for most part • There are occasional grammatical/spelling mistakes, but they do not represent a major distraction or obscure meaning • References are cited to support claims, but there are some minor problems with completeness of format of some citations	• Adequate document the project • The contents in general are arranged logically. • The writing has many grammatical/spelling mistakes, but they do not distract the readers • Evidences are cited to support claims, but some of them are unreferenced or inaccurately referenced and there are problems with completeness of	• Incomplete documentation • The contents are not logically arranged • The writing has many grammatical/spelling mistakes, and they distract the readers • Little attempt is made to cite reference	• No or minimal documentation • The contents are not organized • There are so many grammatical/spelling mistakes that meaning is obscured. • No references are cited to support claims

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
			format of citations		
Oral Presentation / Demonstration	• An accurate and complete explanation of the project is presented / demonstrated • Convey information clearly and inspiring • Maintain eye contact throughout the presentation • Rarely read to notes • Visual aids are logically used to reinforce the spoken message • Demonstrates extensive knowledge of the project by responding to audience questions. • The presentation /demonstration is finished in time. • Produce a high standard poster and auto demo. file	• For the most part, the presentation / demonstration of the project is accurate and complete • Convey information but delivery is a little dry • Maintain eye contact most of the time • Sometimes read to notes • Most of the visual aids used are appropriate and related to the spoken message • Demonstrates good knowledge of the project by responding to audience questions. • The presentation /demonstration is a little bit overrun (within 2 minutes) • Produce a well presented poster and auto demo. file	• The presentation / demonstration is accurate, but incomplete • Convey information but delivery is dry and uninspiring • Some eye contact, but not maintained • At least 50% of the time read to notes • Visual aids are occasionally used appropriately to support some of the spoken messages • Demonstrates sufficient knowledge of the project by responding to audience questions. • The presentation /demonstration is overrun for 2 - 4 minutes • Produce a reasonable	• The presentation / demonstration of the project are mostly inaccurate and incomplete • Show little interest in conveying information • Limited attempt to have eye contact • Read to notes most of the presentation • Limited visual aids are used • Demonstrates limited knowledge of the project by responding to audience questions. • The presentation /demonstration is overrun for 4 - 6 minutes • Produce a minimal standard poster and auto demo. file	• Absent from the presentation / demonstration or no/irrelevant content is presented • No or little visual aids are used • Unable to respond to audience's questions • The presentation /demonstration is too short or too long • Unable to produce a poster and auto demo file. Unable to pro

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
			poster and auto demo. file		
Time Management	• Always finish the task before the deadline and allocate time to complete the task effectively in different phases	• Finish the task before the deadline on most occasions	• Can only finish the task on the very date of the deadline	• Cannot finish the task before deadline on most occasions	• No intention to finish the task before deadline
Professional Attitude	• Always arrive on time for the meeting with supervisor • Always prepared for the meeting	• Occasionally arrive late • Occasional unprepared	• Often arrive late • Often unprepared	• Often arrive late • Rarely prepared	• Often absent from the meeting without prior notice • No preparation for the meeting

Course Content and CILOs Mapping:

Content		CILO No.
I	Project	1-6

References:
- T. Hung, Handbook on Plagiarism, HKBU, 2011.
- C. Lipson, Doing Honest Work in College: How to Prepare Citations, Avoid Plagiarism, and Achieve Real Academic Success, second edition, Chicago Guides to Academic Life, 2008.
- Literature research appropriate to the topics under study.

Course Content:

Topic

I.   Project