



## Department of Computer Science

### Comp2322 -Project Assignment – 3

Each group is required to study a particular problem, within a health environment, and analyse its challenges and suggest a potential solution. The same group that was formed in the lab for other assignments will undertake this assignment too. Each group is required to prepare a PowerPoint presentation. Each group will present their project's work during their own lab session.

For your project assignment, you are required to:

- Work as a group, the same group formed in the lab, for the lab group assignment.
- You are required to identify a problem, in a healthcare environment (hospital, clinic, etc), and analyse the issues, limitations and challenges it is causing. Some example areas of potential are listed below, where you may choose to investigate or consider as problem areas. [However, important to identify one focused well-analysed problem is much better and more informative than identifying a large problem or two many problems and conducting a shallow analysis.]
- In describing the problem you identified above, you are required to write a general scenario that demonstrates the problem, its issues and challenges.
- Suggest a solution using health informatics techniques, technologies or methods, and describe how suggested solution may overcome some of the issues, limitation or challenges you identified.
- You are required to prepare a presentation (for 15 min), to present the complete work as a group, in **your lab session**.
- You are required to submit your presentation, send it to your **lab instructor** as an e-copy on ritaj on the deadline date (see below). You will be assessed on:
  - The depth and value of the identified problem, in terms of its issues and challenges.
  - The depth and the analysis of the problem, and how well it was analysed, of its issues and challenges.
  - The depth, the details and robustness of the solution and its scalability and how detailed it is thought through.
  - The quality of your presentation, in terms of details, clarity and conveyance of the work.
  - How well prepared and conducted was your presentation, as a group.

#### **Project Work Presentation content**

Content of your presentation are expected to include the following elements:



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- Identified **issue**: a description of the identified issue that health informatics may help to address or resolve.
- **Problems** caused by the identified issue: description of what problems (patient care, quality of care, waste of resource etc.) this issue is causing.
- **Challenges** to solve: what challenges, or barriers (technical, policy, financial etc.) if any, that exist and must be overcome to resolve or address this issue.
- A **scenario** that illustrates the identified issue, and its problems and challenges
- Potential **solution**: a description of how you propose to solve or address the issue using one or a combination of health informatics techniques, and how the overall solution may look like and how detailed you have included to illustrate its viability and how clear it is presented and thought through (using diagrams).
- **Evaluation** of the solution, a brief discussion of the how well the solution addresses the identified issue and its problems and challenges, including strength and weak points.

#### **Examples of Potential problem areas to consider, you can suggest your own:**

- Chronic disease management, e.g. diabetes. Consider how diabetic patients are followed up/managed to maintain best quality of life and/or reduce diabetes side effects.
- Complex disease diagnosis, treatment or follow-up. e.g. cancer, or more specifically colorectal cancer, how these patients are diagnosed, follow up through out their treatment etc.
- Healthcare service delivery issues, e.g. incident reporting (e.g. of a drug side effect), how are incidents currently reported or captured.
- Drug dispensing, traceability or more generally management, e.g. how drugs are currently managed, dispensed, traced etc.
- Communicable disease management (or more seriously epidemics), e.g. swine flue (H1N1), how communicable a disease is identified, managed or followed-up?

**Deadline: Submission of Presentation: Monday 6 May 2019.**

**Presentation of Project: presentations will be in the week commencing Monday 6<sup>th</sup> May 2018 – during your lab session**

- The presentation should not exceed 15 min+ 5 minutes questions
- All members of the group must participate in the presentation, those who are absent or do not present will be significantly disadvantaged.
- Presentations should be prepared and presented on a computer and should be ready on a memory key to present using the lab computer.