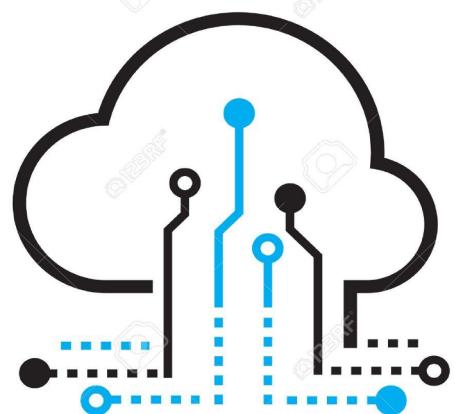
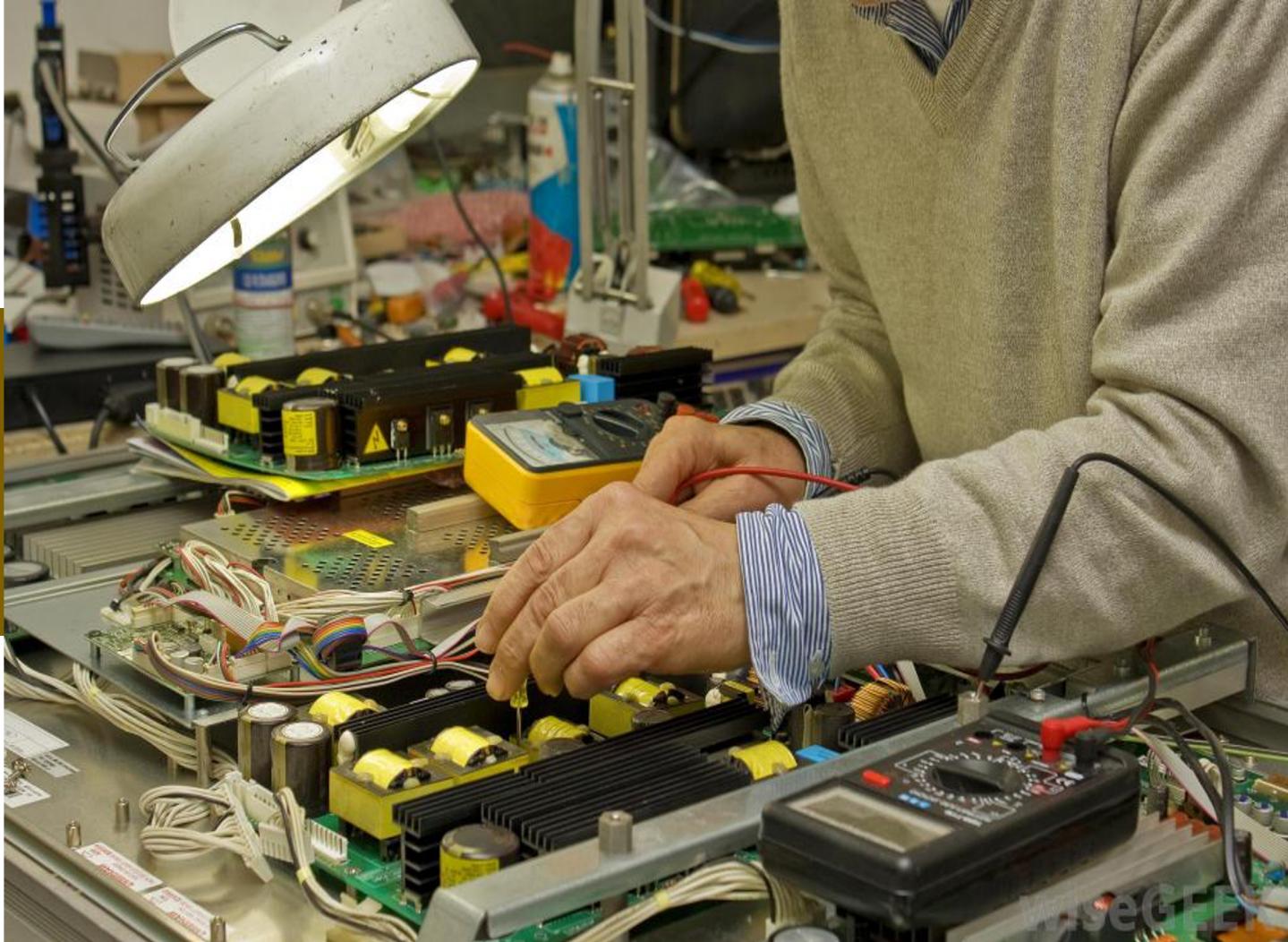


SCSJ 4423  
Real-time Software Engineering  
(RTSE)  
Project 1 - IoT  
Semester 2 2021/2022



**INTERNET OF THING**



School of Computing  
Faculty of Engineering  
Universiti Teknologi Malaysia

Description

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Deliverables

Important Dates

Mark Distribution

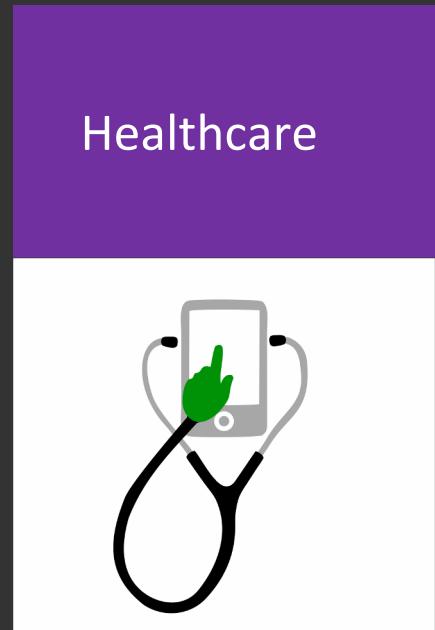
## Project 1 SCSJ 4423



Please propose a NEW REAL-TIME SYSTEM solution for EITHER healthcare, agriculture or natural disaster domain that will utilize the TWO (2) elements, namely, **IOT Technology** and **Data Analytics** or any other additional 4.0 Industrial Revolution (4IR) enabling technologies.

### Domain

Healthcare



Agriculture



Natural Disaster



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## Project 1 SCSJ 4423



1. The combination of mobile apps or web application for acquiring, storing and representing the data analytics (dashboard) with IOT technology is compulsory.
2. Please provide the information needed by referring the given template.
3. The scope of the project is Analysis, Design and Implementation (Prototype).
4. The elements of **FUNCTIONAL** and **NON-FUNCTIONAL: CONSTRAINTS, INTERFACE. PERFORMANCE** with **timing information** is compulsory.
5. Make sure the technical content of the proposed solution is supported with technical paper, especially if it is related to non-functional requirements and specific technology in IOT Technology and Data Analytics or any other additional 4.0 Industrial Revolution (4IR) enabling technologies.

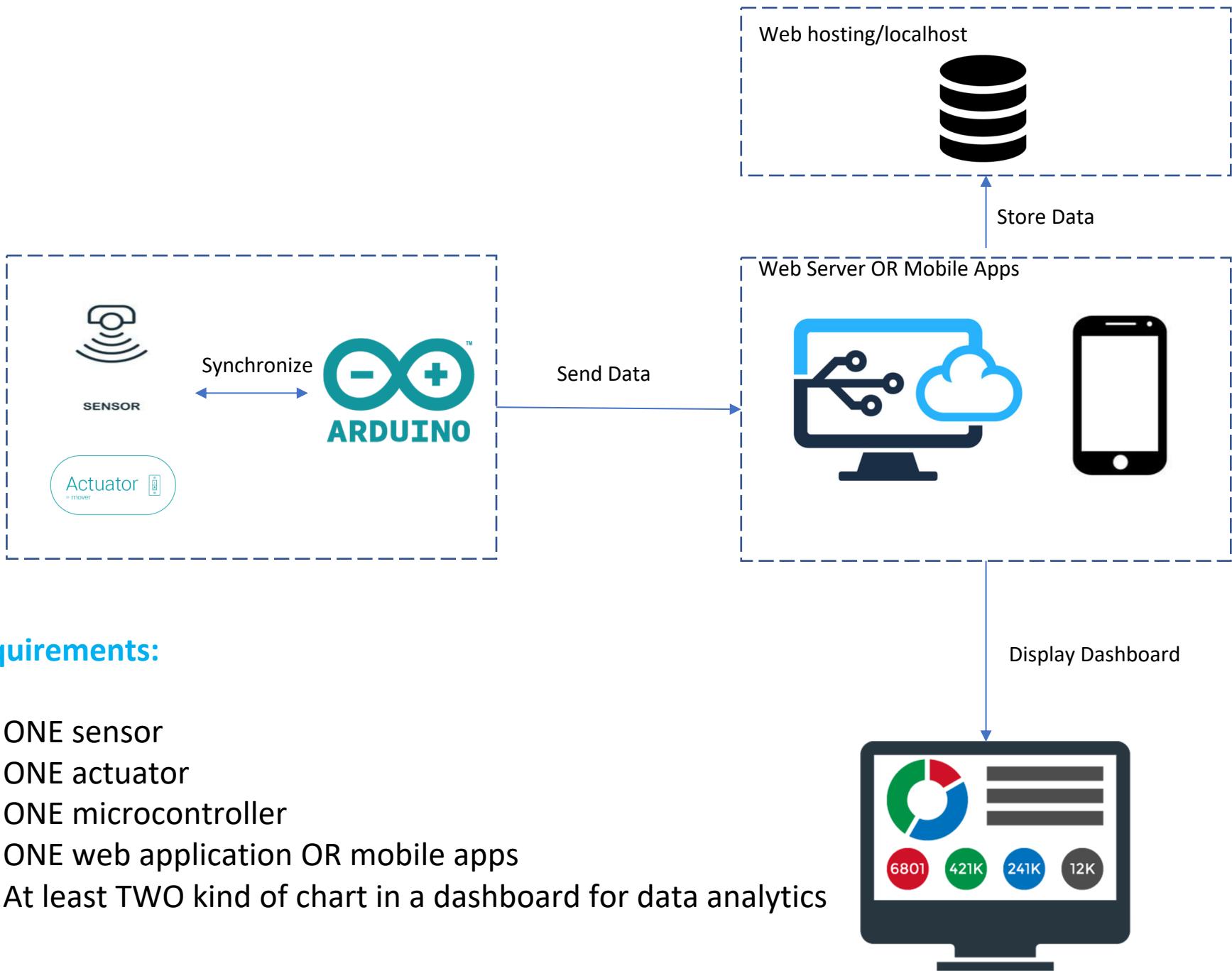
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## Project 1 SCSJ 4423



### 1. Documentation (refer to template)

- I. Analysis – Functional & Non functional requirement with reference, analysis of timing requirement, real-time modeling.
- II. Design – class diagram, system and software architecture, concurrency design.
- III. Selection of Real-Time profile and modeling tool.
- IV. Software project management technique applied.
- V. Implementation - Innovative solution with appropriate support of literature.

### 2. Product video

- I. Total maximum duration – 2-3 minutes
- II. Promo Video (Max 1 minute)
- III. Discuss problem, software model & solution
- IV. Prototype demo

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## Project 1 SCSJ 4423



### 3. Individual Reflection

**What is a Journal?** Your journal should be a reflective document that provides personal, thoughtful analysis of your individual participation on the group project, and your assessment of the group interactions that may have occurred during the project week.

In considering your interactions with your group member and classmates as you proceed with your group project, you could and should address:

#### I. Adaptability to Embedded Real-Time (ERT) System

- Your ability to apply known software Engineering and Computer Science solutions to new ERT situations.
- Your ability to initiate and implement change to the project.

#### II. Collaborative Learning

- What did you learn during this collaborative learning interaction?
- What did you contribute?
- What did the other members of the group contribute?
- What is your assessment of how the group is functioning thus far?
- What are the group's plans for the future next assignment or task?

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Submission Progress Software Document	30 April 2022
Post in e-learning Videos	08 May 2022
Q&A e-forum session	09 - 11 May 2022
Submission Final Software Document	12 May 2022
Submission Individual Reflection	15 May 2022

All the submissions and forum are through e-learning portal

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Project 1  
SCSJ 4423



### CRITERIA

- 1. Promo video**
- 2. Demo Prototype video**
- 3. Documentation**
- 4. Q&A e-forum**
- 5. Individual Reflection**

### MARKS

- |           |               |
|-----------|---------------|
| <b>2%</b> | <b>(CLO1)</b> |
| <b>5%</b> | <b>(CLO1)</b> |
| <b>8%</b> | <b>(CLO1)</b> |
| <b>2%</b> | <b>(CLO4)</b> |
| <b>3%</b> | <b>(CLO4)</b> |

**TOTAL**

**20%**