Assignment – Requirement Specification (50 Marks)
Software Engineering
Due Date: 15 April 2023 (10:00 pm IST)

Pre-requisites: Please do any one of the following based on your time and interest before getting started to work on this Assignment.

- Watch Two movies and understand how the character use the underlying technology in these movies.
    a. **Ready Player One -** a 2018 American science fiction adventure film based on Ernest Cline's novel of the same name. Directed by Steven Spielberg
    b. **Free Guy** - a 2021 American science fiction action-comedy film directed and produced by Shawn Levy

Instructions:

1. This is a Team Assignment, i.e., all the team members should work together to complete the assignment.
2. We expected only one submission from a given team.
3. Total Marks of 50 Marks with duration of 2 weeks.
4. All other conditions are open to your interpretations.
5. All Files are to be submitted via moodle. Please following submission instructions below
6. Evaluation will be conducted based on a fixed grading rubric (syntax, logic, input and output) and the marks are divided as per prescribed weightage in respective questions
7. For queries, reach out to saianirudh.karri@research.iiit.ac.in via Moodle or MS Teams

Karakostas et al. articulated **"Requirement Engineering"** as a set of requirement elicitation (learn), Requirement analysis (study), requirement specification (write), requirement Validation (verify), and requirement Management (share). [Link]

It is required for every *software practitioner* to understand the significance of Requirement Engineering as one must ***learn*** requirements from the end user, ***study*** them in detail, ***write*** them as per end user terms, ***verify*** the possibilities of those end-user requirements and later ***share*** it with respective design-develop-test-release teams to generate a meaningful software.

GOAL: The goal of this assignment is to get you to experience in conducting Requirement Engineering for an emerging technology called "Virtual Reality". There are two steps in this assignment, as illustrated below:

Step 1: Put a collective effort on your neurons and pick a Virtual Reality product of your choice. Record the requirements of your VR product precisely by including information like: *About your VR Product, Description, Target Users, Acceptance Criteria, Unacceptable Criteria, any other information that can help developer to build the VR product. Here is the sample SRS template.* This will be a team submission and only one submission per team is accepted. Submit one PDF with your team information and roll-numbers.

Complete this task defined as part of Step 1 by 1st April 2023 and
submit your VR product requirement information in moodle (we will open a submission link)

Step 2: All the requirements submitted as part of Step 1 will be made available to all the teams. A given team should be able to pick up one VR product requirement (except their own submission) from the available requirements. As part of these steps, the teams are required to use VReqST tool-based approach to specify the precise requirements of the picked VR product. Each team have to sit together, ideate requirements, and record them in the supplied JSON templates mentioned as part of VReqST documentation compatible with the underlying JSON validator file. For your convenience, here are the sample requirement specifications of the Bowling Alley game that was developed at SERC. [Link]

About VReqST: *It is a methodology ideated to record requirement specifications of Virtual Products. To build a Virtual Reality Product, a practitioner must capture requirements for following bare-minimum components – Scene, Articles, Action-Responses, CustomLogic, Timeline. Read the VReqST documentation carefully to understand the JSON templates and their underlying validator files to understand the scope/data-type of the specification allowed to fill the template JSON.*

Step 2 Submission Guidelines:

1. We expect a VR product specification from 1 team using VReqST
2. Each VR Product Specification should contain, 5 files – scene.json, article.json, actres.json, custom.json and timeline.json
3. ZIP your submission and submit it via Moodle **Team<No>_Specifications.zip.** The ZIP should contain the files *scene.json, article.json, actres.json, custom.json, timeline.json and a readme.txt*
4. The readme.txt in each project should contain the the product information in less than 100 words or anything else you wish to add.

Grading Criteria:

1. The submitted JSON specifications will be validated against the JSON Validator files.
2. Each team is supposed to write specifications for a VR (Virtual Reality) product SRS prepared by the other team.
3. Post Submission, we will schedule a Team evaluation to validate your specifications and will grade accordingly.