MOBILE PROGRAMMING

Tutorial 01

Activity 1: React Quiz

Try the following test to check how good you are with React:

https://www.w3schools.com/react/react_quiz.asp

→ **Delivery**: `activity_1.txt` with content following this template:

> Number of finished exercises: …
>
> Time spent: … (minutes)
>
> Number of exercises which need Googling: …

Activity 2: Domineering Game

To begin this activity, please create a React project. When you finish, zip all your source codes (excluding the **node_modules** folder) to submit to this tutorial's submission box. The zip file's name should follow this format: tclass_sid.zip where tclass is your tutorial class name (e.g. **tut01**, **tut02,** etc.) and **sid** is your student's ID (e.g. **2101040015**).

- Create a React project named `domineering` using Vite:

```
npm create vite@latest domineering -- --template react
```

- Open the project in VSCode.
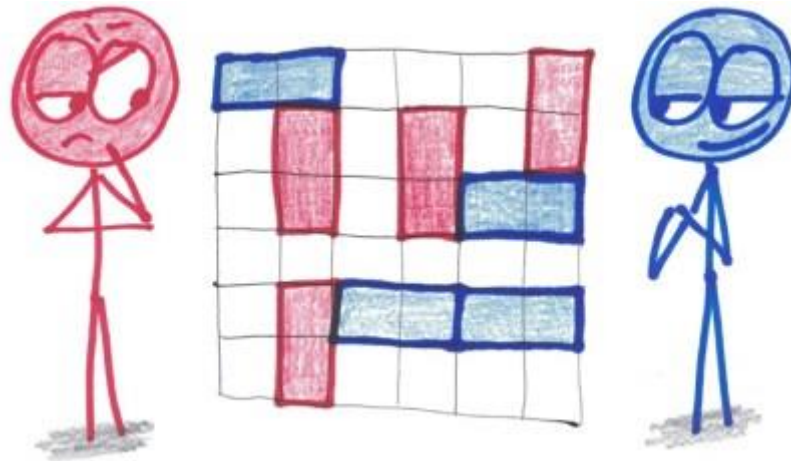- Open a Terminal and start the React app using:

```
npm run dev
```

Visit the React app on browser: http://localhost:5173/

Domineering Game is a two-player strategy game played on a grid (e.g., 10×10 squares).

- The game starts with an empty grid.

- Players take turns placing dominoes (tiles that cover two adjacent squares).
- **Player V** places dominoes **vertically** (covering two squares in the same column).
- **Player H** places dominoes **horizontally** (covering two squares in the same row).
- A move is valid only if both squares the domino covers are empty.
- The game ends when no valid moves are left for the current player.
- The player unable to make a valid move loses the game.

You are tasked to create this game with a 10×10 board using **ReactJS.**

Key Features of the Implementation

- **Interactive Board:** Players can click on squares to place dominoes.
- **Validation:** Ensure the domino fits and does not overlap existing pieces.
- **Turn Management:** Alternate between Player V and Player H.
- **End Game Detection:** Detect when no valid moves are left for a player.

Submission

Submit a zip file containing your source code (excluding `node_modules`) and `activity_1.txt` to this tutorial's submission box on LMS.