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FACULTY OF INFORMATION TECHNOLOGY**

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REPORT

PROJECT - THE MATCHING GAME

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Chapter 1

Overview

Our games have some highlights:

- Eye-catching interface
- Many size of board and characters depends on player
- Interesting game rules

Chapter 2

Tutorial

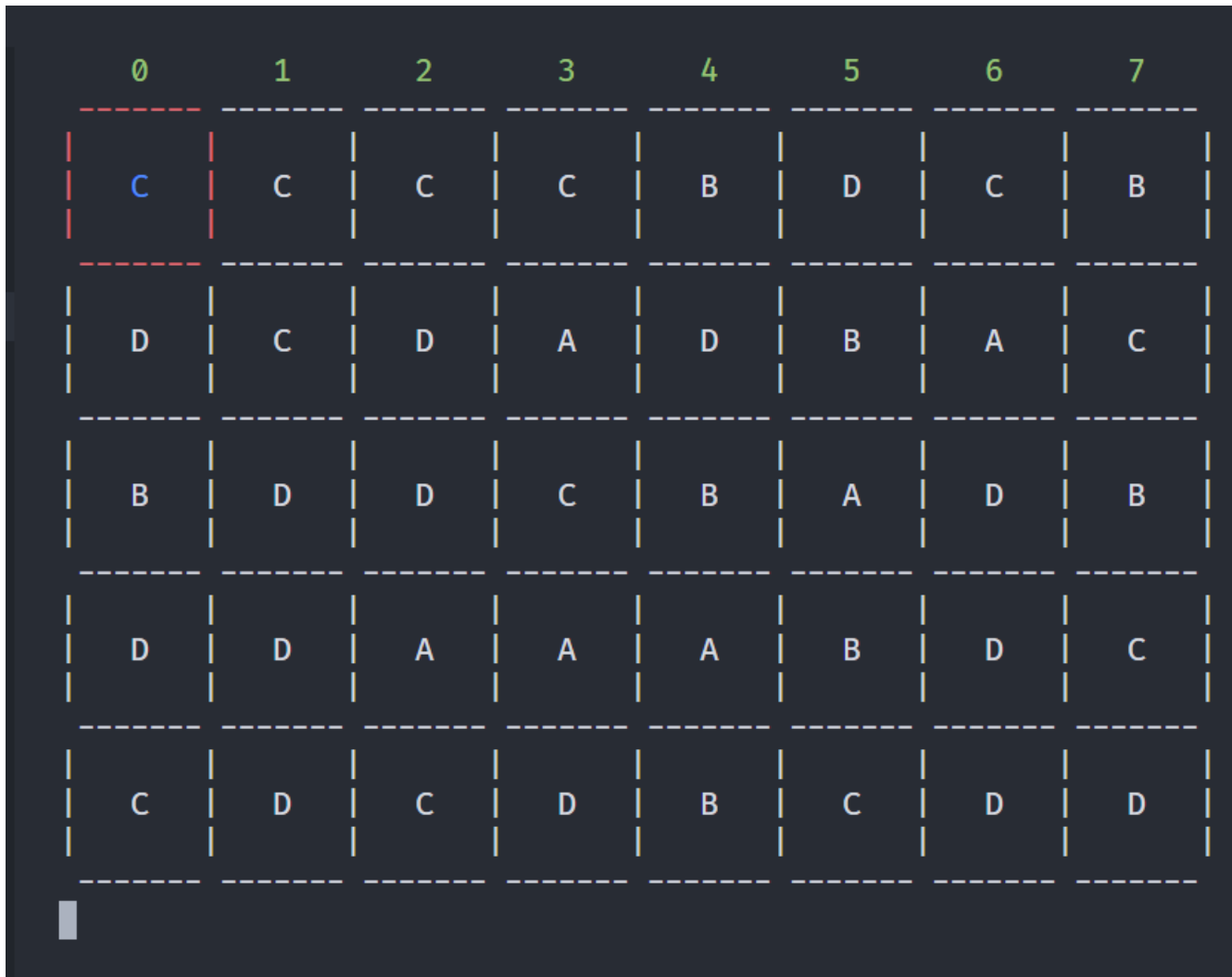
2.1 Game mode Game play

```
===== MENU PICK SIZE=====
1. Grid 16x9
2. Grid 16x10
3. Grid 4x3
4. Grid 8x5

===== END MENU PICK SIZE=====
Your chosen:
```

In our game have 4 mode of grid for player to pick. After that you can pick numbers of character you want to play with.

2.2 Interface



To play game, you will use 4 keyboard arrow (up , left , right , down) to move a red cell around the grid.

If you choose 2 cells that in the same row or column, the character will be delete.

Example:

0	1	2	3	4	5	6	7	
A	D	B	D	A	D	D	C	0
B	B	C	D	A	A	A	C	1
C	C	D	C	C	B	A	D	2
D	D	D	B	D	B	C	C	3
D	A	A	C	D	B	D	C	4

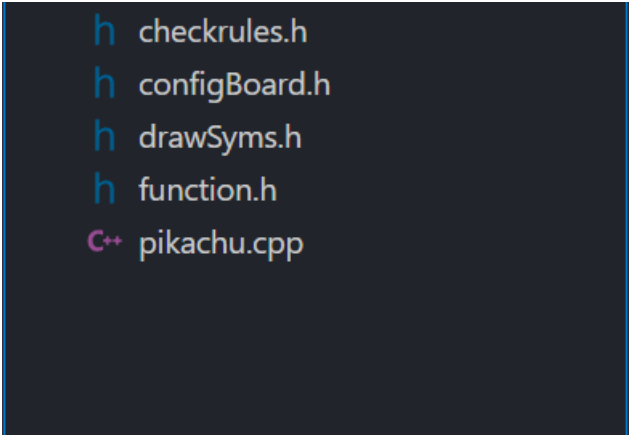
0	1	2	3	4	5	6	7
A	D	B	D	A	D	D	C
B	B	C	D	A	A	A	C
C	C	D		C	B	A	D
D	D	D	B	D	B	C	C
D	A	A	C	D	B	D	C

0	1	2	3	4	5	6	7
A	D	B	D	A	D	D	C
B	B	C	D	A	A	A	C
C	C	D			B	A	D
D	D	D	B	D	B	C	C
D	A	A	C	D	B	D	C

Chapter 3

Game operation

3.1 File organization



```
h checkrules.h
h configBoard.h
h drawSyms.h
h function.h
c++ pikachu.cpp
```

- Checkrules.h
Header file include functions to check condition of matching.
- configBoard.h
Header file include functions to design a board and it's member function.
- drawSyms.h
Header file include functions to draw many symbols like vertical line, horizontal line.
- function.h
Header file include simple functions and standard header file like `jiostream.h`.
- pikachu.cpp
Main program of the game.

3.2 Function

```
> void printHorAxis(int size){ ...  
> void printHorizontalLine(int size, int r, int l, int w) { ...  
> void printVerticalLine(int size, int r, int l, int w) { ...
```

printHorAxis: Print horizontal axis for the grid. Helping player with realize the position easier.

```
> void printBoard(Board B){ ...  
> void picksize(Board &B){ ...  
> void setGrid(Board &B, int num_char){ ...  
> bool checkLineX(Board B, Point p1, Point p2) { ...  
> bool checkLineY(Board B, Point p1, Point p2){ ...
```

- picksize

It has a menu for player to pick the size of board that they want to play.

- setGrid

It sets numbers of character that will be display. The numbers is input from a question to ask player before playing game (from 'A' to 'Z');

Chapter 4

Comparison

Bibliography