

### Electronic Beyblade Trading Card Game

Create an electronic game of Beyblade for 2 players.

The game will hold 10 cards as follows:

| #   | Beyblade Name      | Product Code | Type    | Plus mode | System       |
|-----|--------------------|--------------|---------|-----------|--------------|
| 1.  | Abyss Devolos      | F0647        | Balance | -         | SpeedStorm   |
| 2.  | Ace Dragon         | E7609        | Attack  | -         | HyperSphere  |
| 3.  | Anubion A2         | E1057        | Defense | -         | Dual-Layer   |
| 4.  | Balar B4           | E4726        | Attack  | -         | SlingShock   |
| 5.  | Crystal Dranzer    | F0217        | Balance | -         | Burst        |
| 6.  | Cyclone Belfyre    | F3965        | Stamina | Attack    | QuadDrive    |
| 7.  | Dark-X Nepstrius   | E4749        | Defense | -         | SlingShock   |
| 8.  | Diomedes D2        | E1062        | Attack  | -         | Dual-Layer   |
| 9.  | Doomscizor         | E1033        | Attack  | -         | SwitchStrike |
| 10. | Vatryek Wing Accel | B9492        | Attack  | -         | Burst        |

#### Type precedence –

Stamina with PlusMode > Balance > Attack > Defense

#### System precedence –

QuadDrive > SpeedStorm > Burst > HyperSphere > SwitchStrike > Dual-Layer > SlingShock

The game should be played as follows:

1. Player one and two enter their name
2. System shuffle and randomly assigned numbers 1-10 to the cards
3. Player one pick a card
4. System shuffle remaining cards and randomly assigned numbers 1-9 to the cards
5. Player two pick a card
6. Both Player show cards – players with higher type and system precedence wins the round a mark of 10 is given to the winner
7. This continue till five rounds and the game ended with a display of scores for both players.
8. They can play again if they wish so, otherwise they can choose to exit the game.

Your program **must** have the following:

- I. Good Interface Design (i.e. Presentable manner and easy to understand)
- II. Meaningful comments in the source codes
- III. Its accurate!!
- IV. Please use only what have been learn from the first week till repetition structure.

You are required to provide the following in your documentation (report):

1. Problem Analysis (Input, Output, Process and Constraints)
2. Algorithm (Pseudocode and Flow Chart)
3. Implementation (C++ Program)
4. Test cases (Screenshots for the test cases)

**INSTRUCTIONS:**

This is an individual assignment. Hence, please ensure that:

- 1) You did not copy your friends' codes and you do not let them copy your codes.
- 2) Grade F will be given if you are proven guilty.

Please submit your assignment (individually):

- 1) **Softcopy:** Upload into e-learning by 10/6/2022.
- 2) **VIVA:** You will demo your program over the weekend (after submission) – online.

**DUE DATE: 10 June 2022 (after mid-sem)**