



CPT/CPM 111 – Principles of Programming
Assignment 1 – Individual
Topics covered: Topics 1 – 5

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)