

## DATA STRUCTURES AND ALGORITHMS (*Data Structures Basics*)

### ACTIVITY

**Instruction:** Complete the activity based only on the data structure assigned to you. All examples, scenarios, and problems must be original. Write your answers clearly on a bond paper or yellow paper. Your assigned data structure is found on the second page.

#### **Part 1 – Unique Analogy (15 points)**

Create a real-life analogy for your assigned data structure that is different from the examples in our handout.

- Write 3–5 sentences describing your analogy.
- Clearly explain how it shows the key properties of your data structure.

#### **Part 2 – Personal Application (15 points)**

Think of a situation in your life, community, or a school project where you could use your assigned data structure.

- Write 3–5 sentences describing the situation.
- Explain why your data structure is the best choice for that situation.

#### **Part 3 – Create a Mini Problem with Solution (20 points)**

Design a short problem that tests understanding of your assigned data structure.

- Your problem can be a scenario, short question, or small task.
- Provide a complete and correct solution with explanation.

#### Scoring Rubric

Criteria	Excellent	Good	Needs Improvement
Unique Analogy (15 pts)	Original, clear, strongly connected to concept (13-15)	Clear but generic or weak connection (9-12)	Vague, copied, or unrelated
Personal Application (15 pts)	Realistic, unique, strong justification (13-15)	Realistic but generic or weak justification (9-12)	Vague, unrealistic, irrelevant
Mini Problem & Solution (20 pts)	Original, tests concept well, correct & clear solution (18-20)	Somewhat original, solution correct but unclear(13-17)	Copied, unclear, incorrect solution

Total: /50 points

- 1 Array
- 2 Stack
- 3 Queue
- 4 Linked List
- 5 Tree
- 6 Graph

ALBORES, ANGELICA, B.	1
BACOLOD, BEVERLY, A.	2
BADILLA, KAYEZEIL, C.	3
BALASA, MARK JHONELLE, P.	4
BAQUIAL, KATE, J.	5
BECERA, KAREN, D.	6
BILOY, BRIANNA MAE, P.	6
CABANES, CHARLENE, T.	5
CABRERA, JUSTINE, M.	4
CANONIGO, PRINCESS ANN	3
CEJAS, NIÑO EMMANUEL, L.	2
CEMINE, JOHNMAR, D.	1
DAPITILLA, MEGAN, P.	1
DOLERA, KENNETH, B.	2
DOLIENTE, JONA MAE, D.	3
DRESSNER, GERRY, L.	4
DRESSNER, LEO, L.	5
ESPINO, JANNA	6
GAMAYOT, RAYMART, S.	6
GONZAGA, RENEJIE, U.	5
GUJELDE, JOHN CARL, M.	4
ICAO, JHON PRINCE, S.	3
LACORTE, ROBERTO, C.	2

LAJERA, MANILYN, C.	1
LEOCARIO, JOHN CARLO, E.	6
LOHERO, HERMIE JOY, B.	5
LUNA, MARILYN, D.	4
MAGSALAY, MAICA, B.	3
MORIA, TRIXIE NIÑA, N.	2
OMOSURA, FLORA MAE, B.	1
OMOSURA, MARIANE, O.	1
ORILLOSA, JEDARA, A.	2
PADEROG, MA.NICOLE VERUSKA, B.	3
PEREZ, DOMINIC, C.	4
PILLATORA, ANNE CRYSTAL, P.	5
PUHAWAN, JAY, M.	6
RAMADA, LUZ MARIE, R.	1
RAMA, JERICHO, B.	2
RELI, CARL BENJIE	3
REMPERAS, JANETH, G.	4
REVERO, JAMES, T.	5
SAMIJON, JOHN VINCE, A.	6
SINECA, ALISA, T.	6
TERINGTERING, LLOYD, A.	5
TESALUNA, ANAMAE, V.	4