Cairo University, **Spring 2021**

Faculty of Engineering

Computer Engineering Department

Data Structures and Algorithms CMPN102

**Data Structures and Algorithms**

**Project Phase1 Report**

**Team Name:الكاريزمات Number of members:4**

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| --- | --- | --- |
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**Project Data Structures**

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| **List Name** | **Chosen DS** | **Justification** |
| PolarRover |  |  |
| EmergencyRover | **Queue** | **It’s based on (FIFO) which the important is each rover go to its mission , with variation of its use , O(1) insertion** |
| MountainousRover |  |  |
| MountainousMission |  |  |
| PolarMission | **Queue** | **It’s basad on (FIFO) which the important is each rover go to its mission , with variation of its use , O(1) insertion , O(n) search** |
| EmergencyMission | **Priority Queue** | **It’s basad on (FIFO) which the important is each rover go to its mission , with variation of its use , its priority depends on equation we created from input , O(1) insertion , O(n)search** |
| EventList | **Queue** | **It’s based on (FIFO) which the important is each rover go to its mission , with variation of its use , O(1) insertion , O(1) access** |