



Cairo University  
Faculty of Engineering



DATA STRUCTURES AND ALGORITHMS  
CMPN102  
MARS EXPLORATION PROJECT  
PHASE2

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## Workload:

Abdelrahman Ezzat	Omar Amin
<ul style="list-style-type: none"> <li>• Reading Input in UI</li> <li>• Output file in UI</li> <li>• Priority Queue DS</li> <li>• Modes of operation</li> <li>• Move rovers to execution and checkup</li> </ul>	<ul style="list-style-type: none"> <li>• Formulation event</li> <li>• Cancellation event</li> <li>• Promotion event</li> <li>• Modes of operation</li> <li>• Move rovers to Maintenance</li> </ul>
Amr Ahmed	Yomna Osama
<ul style="list-style-type: none"> <li>• Action Class</li> <li>Assigning Rovers to missions</li> <li>Check Waiting Mission</li> <li>Move to execution</li> <li>Auto Promotion</li> <li>• Move rovers to execution and checkup</li> <li>• Queue DS</li> </ul>	<ul style="list-style-type: none"> <li>• Action Class</li> <li>Assigning Rovers to missions</li> <li>Check Waiting Mission</li> <li>Move to execution</li> <li>Auto Promotion</li> <li>• Move rovers to Maintenance</li> <li>• Move rovers to execution and checkup</li> <li>• Hashtable DS</li> </ul>

## Bonus:

- 1- Mountainous: promotion, Cancellation (Completed the project with all cancelled parts)
- 2- Completed missions in output file are sorted according to CD and if they have same CD they are ordered by ED
- 3- Rover's speed
- 4- Rover's maintenance