



# Aror University of Art, Architecture, Design & Heritage Sukkur

Department of AI-Multimedia and Gaming  
BS AI – III (Section B)

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Lab 01: Fundamentals of array and 2d arrays data structure

Date: Sep 02, 2024

Subject: Data Structure (CSC221), Fall 2024

Instructor: Abdul Ghafoor

**Lab objectives:** In this lab, students will apply their knowledge of arrays in Java to solve specific coding challenges on LeetCode. After completing the challenges, students will practice using various tools by copying their solution code and the lab outline into a Microsoft Word document in an offline environment. They will then learn to submit this document to a GitHub repository and share the project on Google Classroom.

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**Solve Array Challenges on LeetCode:** Students will access LeetCode and complete the specified array challenges. They will apply their understanding of arrays, loops, and conditional statements to find solutions.

**Document the Process:** Students must document their problem-solving process, including the problem statement, their solution code, and a brief explanation of their approach.

**Prepare a Microsoft Word Document:** After coding, students will create a Microsoft Word document and paste their solution code along with the lab outline.

Ensure the document is well-formatted, with clear headings for each section and appropriate code formatting.

**Upload to GitHub:** Students will upload the completed document to a GitHub repository. This task will involve initializing a repository, committing the document, and pushing it to GitHub.

**Basic commands to cover:** git init, git add, git commit, and git push.

**Share on Google Classroom:** Finally, students will share their GitHub project link on Google Classroom to submit their lab assignment.

**Deadline: Sep 09, 2024**

1. <https://leetcode.com/problems/concatenation-of-array/>
2. <https://leetcode.com/problems/find-words-containing-character>
3. <https://leetcode.com/problems/maximum-number-of-words-found-in-sentences>
4. <https://leetcode.com/problems/count-number-of-pairs-with-absolute-difference-k>
5. <https://leetcode.com/problems/find-common-elements-between-two-arrays>
6. <https://leetcode.com/problems/count-primes/>