

**Practical Workbook**  
**CS-219**  
**Computer Engineering Workshop**



Name : \_\_\_\_\_  
Year : \_\_\_\_\_  
Batch : \_\_\_\_\_  
Roll No : \_\_\_\_\_  
Department: \_\_\_\_\_

**Department of Computer & Information Systems Engineering**  
**NED University of Engineering & Technology**

**Practical Workbook**  
**CS-219**  
**Computer Engineering Workshop**



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# INTRODUCTION

This workbook has been compiled to assist the conduct of practical classes for CS-319 Computer Engineering Workshop. Labs are designed with an aim to provide students an opportunity to learn basic Android programming concepts using Java programming language.

Android is an operating system and programming platform developed by Google for smartphones and other mobile devices (such as tablets). It can run on many different devices from many different manufacturers. Apps are developed for a variety of reasons: addressing business requirements, building new services, creating new businesses, and providing games and other types of content for users. Developers choose to develop for Android in order to reach the majority of mobile device users. As the world's most popular mobile platform, Android powers hundreds of millions of mobile devices in more than 190 countries around the world. It has the largest installed base of any mobile platform and is still growing fast.

The Lab manual starts with understanding development process for building simple Android Application, exploring the project structure, manifest file and gradle build system. The next lab session covers the basic of Java programming language, since Java is the base language for Android development. In the next lab sessions students will learn to build a complete delightful interactive android application, which is followed by testing, debugging and adding support libraries in the project as per requirement. The next lab sessions covers different advanced views, menu styles and content picker to improve the user experience. Lab 8 help students to learn localization, resizing and repositioning of content displayed on screen.

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