Manual for Computer Lab

UET Lahore

# 

Introduction to computer lab:

Lab Rule & Etiquettes;

* No one can eat or drink in lab
* Any type of violence would be checked by iron hands
* Regularity and punctuality is very important
* It is necessary for all students to follow the rules

Lab Safety;

Do not touch any circuit board

Keep Clean

No Gaming

No movie downloading

# Operating System Basics:

Introduction to Windows Operating System;

Windows operating system provides a graphical user interface for the user to interact with the computer. It helps the user to use the computer facilities easily. It is more attractive interface to communicate with the computer.

Using MS Windows;

Windows operating system is an official property of Microsoft. Microsoft has all rights to sell its product. The user has to pay for Microsoft Windows installation.

System utilities;

* + - File Explorer
    - Task manager
    - Start button
    - Networking

Word Processing:

* Introduction to word processing software (e.g., Microsoft Word)
* Creating, opening, and saving documents
* Basic formatting (fonts, styles, alignment)
* Inserting images and tables
* Spell checking and proof

# **Spreadsheet Applications**

* Introduction to spreadsheet software (e.g., Microsoft Excel)
* Creating, opening, and saving spreadsheets
* Entering and formatting data
* Formulas and functions (e.g., SUM, AVERAGE)
* Creating charts and graphs

# Programming Fundamental :

* + Introduction to programming concepts
  + Writing and running simple programs (e.g., Hello World)
  + Variables, data types, and operators
  + Control structures (if statements, loops)
  + Debugging and troubleshooting

**Database Management**

* + **Introduction to database concepts**
  + **Creating and managing databases (e.g., Microsoft Access)**
  + **Creating tables, queries, and forms**
  + **Data entry and retrieval Introduction**
  + **Simple database application**

1. **Web Development**
   * Introduction to web development tools (e.g., HTML, CSS)
   * Creating a basic web page
   * Adding text, images, and links
   * Introduction to web development frameworks (e.g., Bootstrap)
2. **Networking Basics**
   * Introduction to networking concepts
   * Configuring network settings
   * Internet browsing and email setup
   * Troubleshooting network issues
3. **Cybersecurity and Ethics**
   * Cybersecurity best practices
   * Password management
   * Ethical considerations in computing
   * Online privacy and security
4. **Project Work**
   * Collaborative project assignments
   * Guided project development
   * Presentation and documentation
5. **Final Exam Preparation**
   * Review of key concepts
   * Practice exercises and sample questions
   * Exam tips and strategies
6. **Appendices**
   * Glossary of computer science terms
   * Troubleshooting guide
   * Additional resources and references

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