

# Advance Programming Techniques (APT)

Lecture # 33

**Ehtisham Rasheed**

Department of Computer Science  
University of Gurjat, Gujrat

UNIVERSITY OF GUJRAT



# ProgressBar Control

- A ProgressBar visually shows the **progress of a task**, such as file upload, downloading, loading data, or completing a loop
- It is commonly used in professional applications to give users feedback that the system is working

# What is ProgressBar?

- A ProgressBar is a visual indicator that fills up as a task progresses
- It prevents the user from thinking the program is “stuck”, especially in time-consuming operations
- Typical use cases:
  - Loading data from a database
  - Copying files
  - Long loops (simulations, calculations)
  - Upload and/or download process
  - Installation screens

# Important Properties

- Minimum
- Maximum
- Value
- Step
- Style
- Demonstrate ProgressBar with a loop

Prepared BY: Ehtisham Rasheed