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CSE210 – Week 02

12 July, 2025

**Explain Abstraction**

# Meaning of Abstraction

To simply put, Abstraction means turning complex ideas into simple ones. It’s also removing characteristics from something so that only the essential ones remain.

## Benefit of Abstraction

Abstraction in programming provides a variety of advantages, mainly by making complex systems easier to understand, encouraging code reuse, and improving maintenance. It enables programmers to concentrate on key features while hiding unnecessary implementation details, resulting in more efficient and organized codebases.

## Application of Abstraction

Example of Abstraction can be like identifying information about a person. We then treat that person as “object” and its responsibility is to hold and display identifying information. To fulfill this, they need to have state and behavior. This way of thinking about a person is abstraction. It's a simplified version of a more complicated object. Although it may appear insignificant at first, it is important to not have to deal about variations in lexical name form elsewhere in our software. We can just allow the person object to handle it.

## Code Example of Abstraction

Example 1:

public class Resume

{

public string \_name;

public List<Job> \_jobs = new List<Job>();

public void Display()

{

Console.WriteLine($"Name: {\_name}");

Console.WriteLine("Jobs:");

foreach (Job job in \_jobs)

{

job.Display();

}

}

}

Example 2:

*public class Job*

*{*

*public string \_jobTitle;*

*public string \_company;*

*public int \_startYear;*

*public int \_endYear;*

*public void Display()*

*{*

*Console.WriteLine($"> {\_jobTitle} | ({\_company}) | {\_startYear}-{\_endYear}");*

*}*

*}*