FACULTY OF ENGINEERING & TECHNOLOGY

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Topics Covered

Functional Programming
Advantages of Functional Programming
Logical Programming

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Functional Programming

- Functional programming languages are specially designed to handle symbolic computation and list processing applications
- Functional programming is based on mathematical functions
- Functional programming languages are categorized into two groups:

- **Pure Functional Languages**
  - These types of functional languages support only the functional paradigms. For example − Haskell
- **Impure Functional Languages**
  - These types of functional languages support the functional paradigms and imperative style programming. For example − LISP

- Functional programming supports higher-order functions and lazy evaluation features

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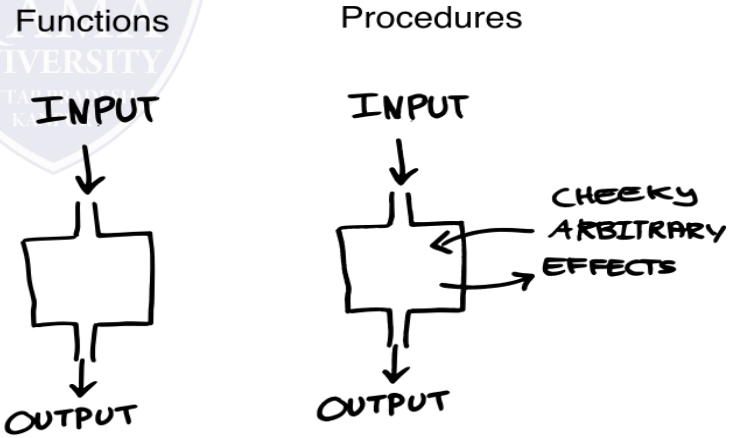
Advantages of Functional Programming

- Functional programming offers the following advantages:
  - Bugs-Free Code
  - Efficient Parallel Programming
  - Efficiency
  - Supports Nested Functions
  - Lazy Evaluation



Logical Programming

- Programs are written in the language of some logic.
- Logic programming is a computer programming paradigm in which program statements express facts and rules about problems within a system of formal logic.
- Some logic programming languages, such as Datalog and ASP (Answer Set Programming), are purely declarative
- Such languages are similar to the SQL database language.