



# Introduction to Application Programming

IST 256

Application Programming for Information Systems

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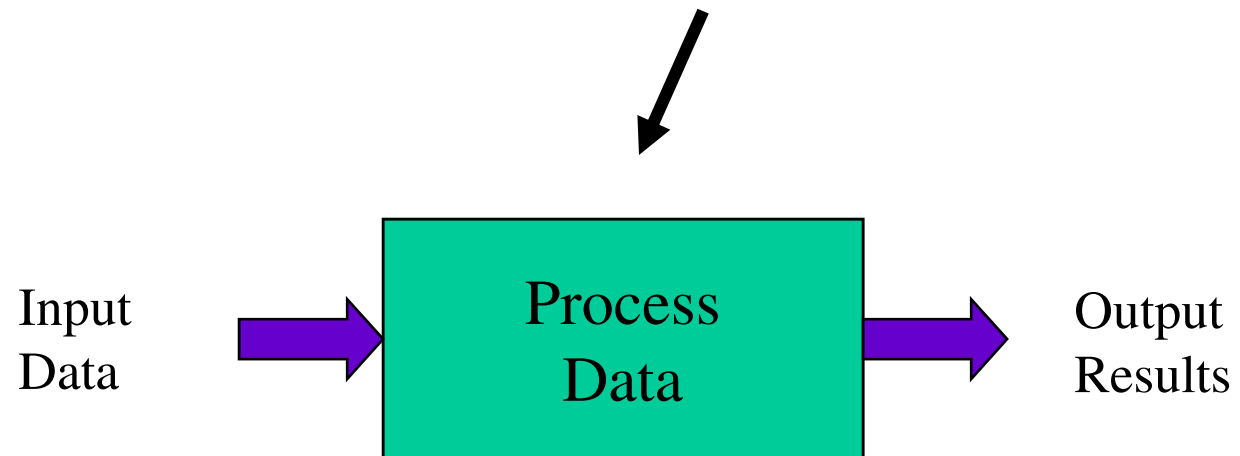
# Application Problems

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- Information applications may have data that can be processed to provide solutions to problems
  - Business: process buying and selling transactions to track inventory or to find sales patterns leading to business trends (data mining)
  - Search engines: process documents to produce a searchable index and process individual search requests to find documents or answers to questions
  - Banking: process individual account transactions to find new account balances
  - Stock Market: process individual stock performances to find trends
  - On-Line Stores: allow users to view products and place orders

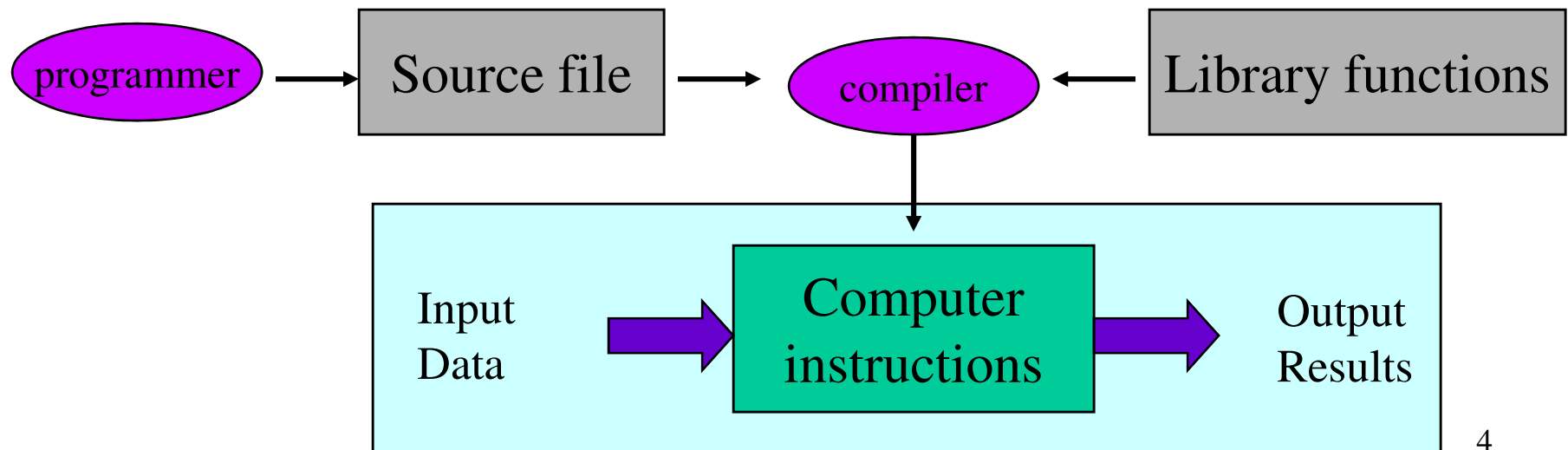
# Solving Problems

Want computer instructions to process data



# Programming Process

- Write instructions in a high-level programming language, stored in the source file
- The compiler translates to computer instructions and combines it with other library functions
  - Libraries provide commonly useful functions such as I/O (input/output), mathematics, graphics, ...



# Visual Basic

- In this course, we will use Visual Basic as the higher level programming language
  - A higher level language that can process numeric or text data to solve problems
  - Contains the standard programming constructs for application programming:
    - Statements, looping, arrays, functions
- Visual interface provided for data input and output
  - Programs will be written in Visual Basic using the Visual Studio software environment
  - Software is available for use in iSchool labs
    - Software is also available for your own computer via the iSchool on-line software repository

# VB Applications

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- In this course, you will write Visual Basic programs to solve problems such as
  - Shopping interface
    - allow users to select items to buy
    - compute charges, including sales tax and discounts
  - Grades
    - Read files with students grades
    - compute GPAs
  - Swap Meet
    - Read files with items for a swap meet
    - Find matches of items to swap at the right price