

# Abstract Class Implementation – Media Library

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## Objective

Design a simple Java application that demonstrates the concept of **abstraction** and **dynamic method dispatch** using an abstract class named `Media`. The application should allow users to input and display details about different types of media: **Books**, **Movies**, and **Songs**.

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## Requirements

1. Define an abstract class `Media` with the following:
    - Fields: `title`, `creator`, `duration`
    - A `Scanner` object for input
    - An **abstract method** `void printDetails()` to be implemented by child classes
  2. Create the following three subclasses that extend the `Media` class:
    - **Book**
      - Accept user input for book title, author, and number of pages
      - Display the book details
    - **Movie**
      - Accept user input for movie title, director, and duration in minutes
      - Display the movie details
    - **Song**
      - Accept user input for song title, singer, and duration in minutes
      - Display the song details
  3. In the `main()` method of the `AbstractMediaDemo` class:
    - Create a base class reference (`Media`)
    - Assign it to each subclass one by one (`Book`, `Movie`, `Song`)
    - Call `printDetails()` on each instance using **dynamic method dispatch**
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## Sample Output

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■ Entering Book Details...
Enter Book Title: The Alchemist
Enter Author Name: Paulo Coelho
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Enter Number of Pages: 208

Book - Title: The Alchemist, Author: Paulo Coelho, Pages: 208

 Entering Movie Details...

Enter Movie Title: Inception

Enter Director Name: Christopher Nolan

Enter Duration (in minutes): 148

Movie - Title: Inception, Director: Christopher Nolan, Duration: 148 mins

 Entering Song Details...

Enter Song Title: Imagine

Enter Singer Name: John Lennon

Enter Duration (in minutes): 3

Song - Title: Imagine, Singer: John Lennon, Duration: 3 mins

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