भारतीय सूचना प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY GUWAHATI
IT Workshop I, B.Tech 3rd Semester

Instructions

1. Deadline to submit is 30th August 2023.

Assignment 4
Total Marks: 25

Consider a Music Playlist Management System and implement the following in Java. The variable/method names indicate their usual meanings. The methods (addSong, removeSong, etc.) will be invoked for one object at a time and this will be identified by the song ID which is passed as a parameter or can also be taken from the user.

Song

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songId: int
songTitle: String
artistName: String
albumTitle: String
genre: String
durationInSeconds: int
playCount: int

«constructor» Song ()
«constructor» Song (duration: int)
setDetails ()
setDetails (id: int, title: String, artist: String, album: String, genre: String, duration: int)
getDetails (id: int)
play (id: int)
addToPlaylist (id: int)
removeFromPlaylist (id: int)

1. Create an array of objects (at least 5) for the Song class and set the details for each song object.

2. Design a menu-driven interface for the user. Users will choose an option from 1. Set Details, 2. Get Details, 3. Play, 4. Add to Playlist, 5. Remove from Playlist, 6. Exit, etc. Based on the option entered by the user, the appropriate operation should be performed by calling the appropriate method of the class. [Hint: getDetails(int) shall be used to display the details of the object identified by songId]

3. You can assume additional instance variables, additional methods, static fields, etc. if needed to make the application more comprehensive and realistic.

Marks distribution: Class creation with constructors: 5, Correct method implementation: 3 mark each x 5 =15, Proper menu feature implementation with object creation: 5