* **Question 3: (2 marks)**

Write a class named **Singer** with the following information:

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| **Singer** | Where:   * Singer(singerId: int, name: String, songsCount: int) - constructor, which initializes the singer ID, name, and number of songs. * getSingerId(): int - Returns the singer ID. * getName(): String - Returns the singer's name. * setName(value: String): void - Sets the singer's name. * getSongsCount(): int - Returns the number of songs. * setSongsCount(value: int): void - Sets the number of songs. * toString(): String - Returns a String in the format: singerId,name,songsCount. |
| - singerId: int  - name: String  - songsCount: int |
| + Singer(singerId: int, name: String, songsCount: int)  + getSingerId(): int  + getName(): String  + setName(value: String): void  + getSongsCount(): int  + setSongsCount(value: int): void  + toString(): String |

Write a class **SingerList** which extends from **ArrayList** (ArrayList is a collection) with the following information:

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| **SingerList** | Hints: to declare the **SingerList** class, you can use the following statement:  **public class SingerList extends ArrayList<Account>**  {  //…..  } |  |
|  |
| + getSingerById(id: int): Singer  + countSingersWithSongsAbove(threshold: int): int |

Where:

* getSingerById(id: int): Singer - Returns the Singer associated with the specified singer ID. If the singer id is not found, it returns null.
* countSingersWithSongsAbove(threshold: int): int - Returns the count of singers with number of songs more than the specified threshold.

***Do not format the result.***

***The program output might look something like this:***

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| --- | --- |
| The information of five Singers was added:  1,Son Tung MTP,20  2,Mono,8  3,Bui Cong Nam,15  4,Hoa Minzy,12  5,Duc Phuc,10  Enter a new Singer  Enter Singer ID: 6  Enter name: Tung Duong  Enter songs count: 20  1. Test getSingerById()  2. Test countSingersWithSongsAbove()  Enter TC(1/2): 1  Enter Singer ID: 7  OUTPUT:  Singer not found | The information of five Singers was added:  1,Son Tung MTP,20  2,Mono,8  3,Bui Cong Nam,15  4,Hoa Minzy,12  5,Duc Phuc,10  Enter a new Singer  Enter Singer ID: 6  Enter name: hieu thu hai  Enter songs count: 10  1. Test getSingerById()  2. Test countSingersWithSongsAbove()  Enter TC(1/2): 1  Enter Singer ID: 3  OUTPUT:  3,Bui Cong Nam,15 |
| The information of five Singers was added:  1,Son Tung MTP,20  2,Mono,8  3,Bui Cong Nam,15  4,Hoa Minzy,12  5,Duc Phuc,10  Enter a new Singer  Enter Singer ID: 6  Enter name: Phuong Thanh  Enter songs count: 30  1. Test getSingerById()  2. Test countSingersWithSongsAbove()  Enter TC(1/2): 2  Enter threshold songs count: 15  OUTPUT:  2 | The information of five Singers was added:  1,Son Tung MTP,20  2,Mono,8  3,Bui Cong Nam,15  4,Hoa Minzy,12  5,Duc Phuc,10  Enter a new Singer  Enter Singer ID: 6  Enter name: Ly Ly  Enter songs count: 10  1. Test getSingerById()  2. Test countSingersWithSongsAbove()  Enter TC(1/2): 2  Enter threshold songs count: 8  OUTPUT:  5 |