**WS9 – advanced Objects**

Agenda:

1. (2-5 min) Explain the “problem” we aim to solve:

We create a music streaming system in which the User has a playlist of songs, and each song has some information about it. Singers can also have their own music associated with them.

1. (5-15 min) Recaps:
   * What is an Enum? What are we using them for?
   * What is “static”? What are we using it for?
2. (5-10 min) Go through “GenreEnum” and implement.
3. (2-5 min) Go through “StringHelpers” class shortly just to understand what tool it gives us (the “captializeWords” function).
4. (15-20 min) Go through “Song” class.
   * Talk about the fields and their necessities:

Why do we (almost) always use a count field for an array (like songs) instead of “just using the length of the array”?

Because the array is not necessarily full, and we only want to have access to the items that we DO have inside the array.

* + Talk about the “idCalc” function (static relevance!)
  + Implement all of the functions in the class.

1. (15-20 min) Go through “Singer” class.
   * Talk about the fields and their necessities.
   * Explain the “resize” function and talk about why we need it.

Because we can not change the size of an array, but we do need to store more data…

* + Implement all of the functions in the class.

Time permitting: “topRatedSongs” function.

1. (15-20 min) Go through “User” class.
   * Talk about the fields and their necessities.
   * Talk about the differences between “indexOf(Song s)” and “indexOf(String title)”. What can we already know that is going to be different?

When getting a song, the title is already capitalized, but when getting a title, we need to capitalize it before using it.

* + Implement all of the functions in the class.