

Revision Thu:

HMW would also like to implement the concept of a playlist to gather favorite tracks of a particular user. For this you will define a class named `Playlist` with the following specifications:

Instance Data Members:

- `ID`: An identification number that is unique for each playlist. Define any static variable(s) to generate and keep track of such IDs. Once a playlist is registered in the system, they will stay forever even if there are no registered tracks in the album currently.
- `userID`: The ID of the user who created this playlist.
- `name`: Name of the album.
- `noOfTracks`: Number of tracks in the album.
- `listOfTracks`: The list of tracks in the album represented with a string formed by concatenating the IDs of all the tracks in the playlist separated by blank spaces.

Methods:

- `Constructor`: Takes `name` and user ID as input values and initializes the respective instance data members for that instance.
- `addTrack`: Adds the input track as a track in this playlist. Any affected instance data variables should be properly updated. Note that the actual list of tracks of this album is kept as a string of IDs as defined earlier.
- `removeTrack`: Removes the input track from this playlist. Any affected instance data variables should be modified as well.
- `toString`: Returns a string representation of the artist showing details for all of the data members for the playlist.

The `Track` class that you wrote earlier should not need to change due to addition of the `Playlist` class. To parse the contents of the track list string, you may use the `Scanner` class and pass the string as a parameter to its constructor during initialization (as opposed to `System.in`).

Sample run:

```
Track t1 = new Track("Love over gold", 123, 234, "12/08/1982", (short)2473);
t1.setGenre("RO");
Track t2 = new Track("Gozleri aska gulen", 140, 98, "18/04/2018", (short)257);
t2.setGenre("PO");

Playlist plist = new Playlist(9, "Ugur's favorites");

plist.addTrack(t1);
plist.addTrack(t2);

System.out.println(plist.toString());

if (plist.removeTrack(t2)) {
    System.out.println("Track " + t2.getID() +
        " successfully removed from playlist " + plist.getID() + ".\n");
}
else {
    System.out.println("Track " + t2.getID() + " not found in playlist " +
        plist.getID() + "!\n");
}
```

```
System.out.println(plist.toString());

*****
Playlist of user 9 with 2 tracks: 1 2
Name: Ugur's favorites
*****

Track 2 successfully removed from playlist 1.

*****
Playlist of user 9 with 1 tracks: 1
Name: Ugur's favorites
*****
```