

List of Lists (Nested List)

Aim: How can we make a playlist app using sublists?

Learning Objectives/SWBAT:

- Store and access data in a list of lists
- Explain the importance of using sublists to store data

NYS Standards:

- **9-12.CT.7:** Design or remix a program that utilizes a data structure to maintain changes to related pieces of data.
 - **Clarifying Statement:** The focus is on updating the elements or components within a named instance of a data structure, without changing the value associated with the name itself.

Agenda	Notes/Anticipated Student Responses
Warm Up (3 mins) Name your 5 favorite songs and for each find information about the following: <ul style="list-style-type: none">• Song name• Artist• Album• Year Released• Genre	For example, a student may write “Irreplaceable, Beyonce, B’Day, 2006, Pop,” etc.

Mini Lesson (7 mins)

Ask students to organize the information in a way that makes sense on paper. Students should share with their neighbor what they came up with.

Students may come up with a table of information, like:

#	Song Name	Artist	Album	Year Released	Genre
1	Irreplaceable	Beyonce	B’Day	2006	Pop
2	Party in the USA	Miley Cyrus	Pop It Rock It 2: It’s On	2009	Pop
3	Empire State of Mind	Jay-Z	The Blueprint 3	2009	Hip Hop
4	Cold	Chris Stapleton	Starting Over	2020	Country
5	Trip	Ella Mai	Ella Mai	2018	R&B

Elicit that a list of lists, or nested lists, are a natural and helpful way to organize information. Ask students other examples of information that can be represented in this way, as a list of lists (i.e. contact list, shopping list, TV/movie recommendations, etc.).

Show students how to create a list of lists in Snap.

<p>Activity (25 mins)</p> <p>Students will build a music player app that will:</p> <ul style="list-style-type: none"> • ask the user for data to be inputted into a list called “song list” • store the data inputted as a list of lists • ask the user which song, artist, genre, etc. they would like information for, access the list, and display to the user all songs with that information 	
<p>Exit Ticket (3 mins)</p> <p>Name one accomplishment or one thing you learned, and one question you have or clarification you need.</p>	