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As you read the following OLI pages and complete the interactive activities, capture the screenshots of the completed activities and replace the respective screenshots in the document.

- Page 47 Array of struct objects

When you are ready to submit the assignment, download the document in PDF and submit the PDF file on Cougar Course as the proof for your work.

Page 47 Arrays of struct objects

Hotspot access struct objects via []

Given the following content of the "songs.txt" file.

```
1,Someone You Loved,Lewis Capaldi,3
2,Truth Hurts,Lizzo,1
3,Senorita,Shawn Mendes & Camila Cabello,2
```

How many times will the `collect_one_song` function be invoked by the above program?

✓ Correct! The input file has 3 lines and the program repeats the loop body three times.

What is the value of `num_songs` before the `collect_one_song` is called for the first time?

✓ Correct! The program initializes `num_songs` to 0 before the loop.

What is the value of `num_songs` after the `collect_one_song` is called for the first time?

✓ Correct! the program increases `num_songs` from 0 to 1 after the first call.

What is the value of `num_songs` when the `while` loop is completed?

✓ Correct! The loop body is repeated three times and `num_songs++` is executed three times, going from 0 to 1, 1 to 2, and 2 to 3.

The `print_one_song` function was defined display one `Song` object.

```
void print_one_song(Song s) {
    cout << s.title << " by " << s.artists << " was ranked ";
    cout << s.ranking_last_week << " last week. It is now ranked ";
    cout << s.ranking_this_week << " this week.n";
}
```

The following loop is set up to display all of the `Song` objects we have collected into `top_hits`.

```
for (int i = 0; i < num_songs; i++) {
    print_one_song(_____);
}
```

What should we use to replace _____?

- ☐ s
- ☒ top_hits[i]
- ☐ top_hits
- ☐ top_hits[num_songs]

✓ Correct; this specify which element of `top_hits` we want to display.

LBD access data members of struct objects

Which of the following access the title of the second `Song` object in `top_hits`?

- ☐ `top_hits.title[1]`
- ☒ `top_hits[1].title`
- ☐ `top_hits.title`

✓ Correct; `top_hits[1]` refers to the second `Song` object. `top_hits[1].title` refers to the title of the second `Song` object.

In the following space, write the code to display last week's ranking for the 3rd `Song` object in `top_hits`.

```
top_hits[2].ranking_last_week
```

Resubmit

✓ `top_hits[2].ranking_last_week`

MR potential applications

What analyses would you feel comfortable perform on an array of Song objects?

Any.

Resubmit

✓ Thanks for sharing.

What analyses of an array of Song objects would you like to get some help with?

All.

Resubmit

✓ Thanks for sharing.