

## CPSC 304 Project Cover Page

Milestone #: \_\_\_\_4\_\_\_\_

Date: \_\_\_\_11/26/2021\_\_\_\_

Group Number: \_\_\_\_72\_\_\_\_

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

GitHub link:

[https://github.students.cs.ubc.ca/CPSC304-2021W-T1/project\\_r3h3b\\_v5j3b\\_w6t6g.git](https://github.students.cs.ubc.ca/CPSC304-2021W-T1/project_r3h3b_v5j3b_w6t6g.git)

## 1. Short description

Our team made a simple PHP web program to manage information about TV programs. We especially focus on the relationship between episodes and programs. We used SQL to query the data from the dataset, and Oracle DBMS (offered by the school server) and PHP as a tool stack.

## 2. Nothing changed from the schema

## 3. All SQL Lists

- INSERTION: With a given program title(t) and dayPlayed(d), users can create a new program in Program2 with default 0 episodes.

```
INSERT INTO Program2 VALUES(t, d, 0);
```

- INSERTION: With program title(pt) and episode title(et) and released date(r) and streaming time(s), user can create an episode in Contain\_Episode

```
INSERT INTO Contain_Episode VALUES(pt, et, r, s);
```

- DELETION: With given program title(pt), user can delete a program from Program2

```
DELETE FROM Program2 WHERE Title = pt;
```

- DELETION: With given program title(pt) and Episode title(et), user can delete an episode from Contain\_Episode :

```
DELETE FROM Contain_Episode WHERE Title = et AND ProgramTitle = pt;
```

- UPDATE: With program title(pt) and number of episode(e) and dayPlayed(d), user can update the number of episodes and dayPlayed in Program2.

```
UPDATE Program2
```

```
SET Episodes = e, dayPlayed = d
```

```
WHERE Title = pt;
```

- UPDATE: With program title(pt) and Episode title(et), user can update ReleasedDate and StreamingTime in Contain\_Episode

UPDATE Contain\_Episode

SET ReleasedDate = rd, StreamingTime = st

WHERE Title= et AND ProgramTitle = pt;

- SELECTION, PROJECTION, JOIN: With given program Title(pt), user can know the estimated budget

SELECT Program1.estimateBudget

FROM Program1, Program2

WHERE Program2.Title = pt AND Program1.Episodes = Program2.Episodes

- SELECTION, PROJECTION, JOIN: With given program title(pt) and episode title(et), user can know the dayPlayed and streaming time

SELECT CE.StreamingTime, P.dayPlayed

FROM Program2 P, Contain\_Episode CE

WHERE P.Title = pt AND CE.Title = et AND CE.ProgramTitle = pt;

- SELECTION, PROJECTION: Users can know the program title in which programs have MAX Episodes from Program2.

SELECT Title

FROM Program2

WHERE Episodes = (SELECT MAX(Episodes) FROM Program2);

- AGGREGATION WITH GROUP BY: User can know number of programs in each dayPlayed from Program2

SELECT dayPlayed, COUNT(\*)

FROM Program2

GROUP BY dayPlayed;

- SELECTION, PROJECTION: User can know which program title and episodes number with more than 5 episodes from Program2

SELECT Title, Episodes

FROM Program2

WHERE Episodes > 5

- AGGREGATION WITH HAVING: User can know which dayPlayed with Average episodes of programs is more than 5 from Program2

SELECT dayPlayed

FROM Program2

GROUP BY dayPlayed

Having AVG(Episodes) > 5

- NESTED AGGREGATION WITH GROUP BY: User can know program title which have dayItPlayed with having episodes with more than 6

SELECT P.title

FROM Program2 P

WHERE P.dayPlayed IN (SELECT dayPlayed FROM Program2 GROUP BY dayPlayed HAVING MAX(Episodes) > 6)

- DIVISION: User can know the episode title in which all program have

SELECT DISTINCT CE.Title FROM Contain\_Episode CE

WHERE NOT EXISTS (

SELECT p.Title FROM Program2 p

MINUS

SELECT CE2.ProgramTitle FROM Contain\_Episode CE2 WHERE CE2.Title = CE.Title

)

- SELECTION, PROJECTION: User can know the program and episode title which have the longest streaming time

```
SELECT C.ProgramTitle, C.Title
```

```
FROM Contain_Episode C
```

```
WHERE C.StreamingTime = (SELECT MAX(StreamingTime) FROM Contain_Episode)
```

#### 4. Screenshots

##### 1) Insert New Program with 0 Episodes:

Before:

**Insert New program in to Program Table**  
Title:   
Day:

Title	Episodes	dayPlayed
A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

After:

**Insert New program in to Program Table**  
Title:   
Day:

Title	Episodes	dayPlayed
A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday
New	0	Sunday

##### 2) Delete Program with Program Title:

Before:

**Delete Program from Program Table**  
Title:

Title	Episodes	dayPlayed
A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday
New	0	Sunday

After:

Delete Program from Program Table

Title:

Delete

Title Episodes dayPlayed

A7Thursday

B3Friday

C2Monday

D5Friday

E7Sunday

F2Sunday

G3Friday

3) Insert New Episode with Episode Title, Program Title, Released Date, and Streaming Time:

Before:

Insert new episode to Episode Table

Episode Title:

Program Title:

Released Date:

Streaming Time:

Insert

Title ProgramTitle ReleasedDate StreamingTime

a1A22-NOV-21999999

a2A07-OCT-21110

a3A14-OCT-21115

a4A21-OCT-21118

a5A28-OCT-21122

a6A22-NOV-211111

a7A11-NOV-21125

allA11-NOV-21120

b1B05-NOV-2150

b2B12-NOV-2155

b3B19-NOV-2148

allB11-NOV-2160

c1C08-NOV-2190

c2C15-NOV-2195

allC11-NOV-2198

d1D22-NOV-21110

d2D29-NOV-21105

d3D05-NOV-21112

d4D12-NOV-21115

d5D19-NOV-21106

allD11-NOV-21110

e1E26-SEP-2140

e2E03-OCT-2145

e3E10-OCT-2146

e4E17-OCT-2143

e5E24-OCT-2144

e6E31-OCT-2145

e7E07-NOV-2140

allE11-NOV-2140

f1F31-OCT-2160

f2F07-NOV-2165

allF11-NOV-2165

g1G05-NOV-21100

g2G12-NOV-21105

g3G19-NOV-21100

allG11-NOV-21100

After:

### Insert new episode to Episode Table

Episode Title:

Program Title:

Released Date:

Streaming Time:

Title	ProgramTitle	ReleasedDate	StreamingTime
a8	A	25-NOV-21	30
a1	A	22-NOV-21	999999
a2	A	07-OCT-21	110
a3	A	14-OCT-21	115
a4	A	21-OCT-21	118
a5	A	28-OCT-21	122
a6	A	22-NOV-21	1111
a7	A	11-NOV-21	125
all	A	11-NOV-21	120
b1	B	05-NOV-21	50
b2	B	12-NOV-21	55
b3	B	19-NOV-21	48
all	B	11-NOV-21	60
c1	C	08-NOV-21	90
c2	C	15-NOV-21	95
all	C	11-NOV-21	98
d1	D	22-NOV-21	110
d2	D	29-NOV-21	105
d3	D	05-NOV-21	112
d4	D	12-NOV-21	115
d5	D	19-NOV-21	106
all	D	11-NOV-21	110
e1	E	26-SEP-21	40
e2	E	03-OCT-21	45
e3	E	10-OCT-21	46
e4	E	17-OCT-21	43
e5	E	24-OCT-21	44
e6	E	31-OCT-21	45
e7	E	07-NOV-21	40
all	E	11-NOV-21	40
f1	F	31-OCT-21	60
f2	F	07-NOV-21	65
all	F	11-NOV-21	65
g1	G	05-NOV-21	100
g2	G	12-NOV-21	105
g3	G	19-NOV-21	100
all	G	11-NOV-21	100

### 4) Delete Episode with Episode Title and Program Title:

Before

### Delete Episode

Episode Title:

Program Title:

Title	ProgramTitle	ReleasedDate	StreamingTime
a8	A	25-NOV-21	30
a1	A	22-NOV-21	999999
a2	A	07-OCT-21	110
a3	A	14-OCT-21	115
a4	A	21-OCT-21	118
a5	A	28-OCT-21	122
a6	A	22-NOV-21	1111
a7	A	11-NOV-21	125
all	A	11-NOV-21	120
b1	B	05-NOV-21	50
b2	B	12-NOV-21	55
b3	B	19-NOV-21	48
all	B	11-NOV-21	60
c1	C	08-NOV-21	90
c2	C	15-NOV-21	95
all	C	11-NOV-21	98
d1	D	22-NOV-21	110
d2	D	29-NOV-21	105
d3	D	05-NOV-21	112
d4	D	12-NOV-21	115
d5	D	19-NOV-21	106
all	D	11-NOV-21	110
e1	E	26-SEP-21	40
e2	E	03-OCT-21	45
e3	E	10-OCT-21	46
e4	E	17-OCT-21	43
e5	E	24-OCT-21	44
e6	E	31-OCT-21	45
e7	E	07-NOV-21	40
all	E	11-NOV-21	40
f1	F	31-OCT-21	60
f2	F	07-NOV-21	65
all	F	11-NOV-21	65
g1	G	05-NOV-21	100
g2	G	12-NOV-21	105
g3	G	19-NOV-21	100
all	G	11-NOV-21	100



After:

## Delete Episode

Episode Title:

Program Title:

Title	Program	Title Released	Date	Streaming	Time
a1	A		22-NOV-21	999999	
a2	A		07-OCT-21	110	
a3	A		14-OCT-21	115	
a4	A		21-OCT-21	118	
a5	A		28-OCT-21	122	
a6	A		22-NOV-21	1111	
a7	A		11-NOV-21	125	
all	A		11-NOV-21	120	
b1	B		05-NOV-21	50	
b2	B		12-NOV-21	55	
b3	B		19-NOV-21	48	
all	B		11-NOV-21	60	
c1	C		08-NOV-21	90	
c2	C		15-NOV-21	95	
all	C		11-NOV-21	98	
d1	D		22-NOV-21	110	
d2	D		29-NOV-21	105	
d3	D		05-NOV-21	112	
d4	D		12-NOV-21	115	
d5	D		19-NOV-21	106	
all	D		11-NOV-21	110	
e1	E		26-SEP-21	40	
e2	E		03-OCT-21	45	
e3	E		10-OCT-21	46	
e4	E		17-OCT-21	43	
e5	E		24-OCT-21	44	
e6	E		31-OCT-21	45	
e7	E		07-NOV-21	40	
all	E		11-NOV-21	40	
f1	F		31-OCT-21	60	
f2	F		07-NOV-21	65	
all	F		11-NOV-21	65	
g1	G		05-NOV-21	100	
g2	G		12-NOV-21	105	
g3	G		19-NOV-21	100	
all	G		11-NOV-21	100	

## 5) Update Episodes and Day Played with Program Title

Before:

### Update Episodes and Day it played

Episodes =

Day Played =

Program Title =

#### Title Episodes dayPlayed

New	0	Thursday
A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

After:

### Update Episodes and Day it played

Episodes =

Day Played =

Program Title =

#### Title Episodes dayPlayed

New	1	Sunday
A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

## 6) Display Program title which program have Maximum Episodes

User Interface

**Display Program title which program have Maximum Episodes**

Result

Retrieved data from Program2 table:

**Title**

A

E

7) Display Program Title and Episodes # with more than 5 episodes

User Interface
<b>Display Program Title and Episodes # with more than 5 episodes</b> <input type="button" value="제출"/>
Result
Retrieved data from Program2 table, <b>Program Title Episodes</b> A                7 E                7

8) Update Release date and Streaming Time

1. Before modifying the existing table
<b>Title ProgramTitle ReleasedDate StreamingTime</b> a1    A                30-SEP-21    120 a2    A                07-OCT-21    110 <u>a3    A                14-OCT-21    115</u> a4    A                21-OCT-21    118 a5    A                28-OCT-21    122
User Interface

## Update Release date and Streaming Time

Program Title:

Episode Title:

Released Date:

Streaming Time:

### 2. After modification

	<b>Title</b>	<b>ProgramTitle</b>	<b>ReleasedDate</b>	<b>StreamingTime</b>
a1	A		30-SEP-21	120
a2	A		07-OCT-21	110
a3	A		<u>10-MAY-21</u>	<u>93</u>
a4	A		21-OCT-21	118
a5	A		28-OCT-21	122

### 9) Display Airdate and Running Time

#### User Interface

## Display Airdate and Running Time

Program Title:

Episode Title:

#### Result

Retrieved data from table, Contain\_Episode and Program2,

**Streaming Time Day Played**

93

Thursday

10) Display Estimated Budget

User Interface

**Display Estimated Budget**

Program Title:

Result

Retrieved data from table Program 1 and Program2

**Estimated Budget**

7000

11) Display Number Of Program in Each dayPlayed in Program2

Display all tuples in Program2:

Display the result of query:

**Display the Tuples in Program2**

Submit

**Display the Tuples in Contain\_Episode**

Submit

**Title Episodes dayPlayed**

A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

**Display Number Of Program in Each dayPlayed in Program2**

Submit

Retrieved data from table Program2:

**dayPlayed NumberOfProgram**

Sunday	2
Thursday	1
Monday	1
Friday	3

12) Display dayPlayed in which programs' average episodes is more than 5 in Program2

Display all tuples in Program2:

Display the result of query:

**Display the Tuples in Program2**

Submit

**Display the Tuples in Contain\_Episode**

Submit

**Title Episodes dayPlayed**

A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

**Display dayPlayed in which programs' average episodes is more than 5 in Program2**

Submit

Retrieved data from table Program2:

**dayPlayed**

Thursday

13) Display dayPlayed which have at least one program with more than 6 episodes in Program2

Display all tuples in Program2:

Display the result of query:

Display the Tuples in Program2

Submit

Display the Tuples in Contain\_Episode

Submit

Title Episodes dayPlayed

A	7	Thursday
B	3	Friday
C	2	Monday
D	5	Friday
E	7	Sunday
F	2	Sunday
G	3	Friday

Display program title in dayPlayed which have at least one program with more than 6 episodes in Program2

Submit

Retrieved data from table Program2:

Program Title

E  
F  
A

|

14) Display Episode Title in all the programs in Contain\_Episode

Display all tuples in Contain\_Episode:    Display the result of query:

**Display the Tuples in Contain\_Episode**

Submit

**Title ProgramTitle ReleasedDate StreamingTime**

a1	A	22-NOV-21	999999
a2	A	07-OCT-21	110
a3	A	14-OCT-21	115
a4	A	21-OCT-21	118
a5	A	28-OCT-21	122
a6	A	22-NOV-21	1111
a7	A	11-NOV-21	125
all	A	11-NOV-21	120
b1	B	05-NOV-21	50
b2	B	12-NOV-21	55
b3	B	19-NOV-21	48
all	B	11-NOV-21	60
c1	C	08-NOV-21	90
c2	C	15-NOV-21	95
all	C	11-NOV-21	98
d1	D	22-NOV-21	110
d2	D	29-NOV-21	105
d3	D	05-NOV-21	112
d4	D	12-NOV-21	115
d5	D	19-NOV-21	106
all	D	11-NOV-21	110
e1	E	26-SEP-21	40
e2	E	03-OCT-21	45
e3	E	10-OCT-21	46
e4	E	17-OCT-21	43
e5	E	24-OCT-21	44
e6	E	31-OCT-21	45
e7	E	07-NOV-21	40
all	E	11-NOV-21	40
f1	F	31-OCT-21	60
f2	F	07-NOV-21	65
all	F	11-NOV-21	65
g1	G	05-NOV-21	100
g2	G	12-NOV-21	105
g3	G	19-NOV-21	100
all	G	11-NOV-21	100

**Display Episode Title in all the programs in Contain\_Episode**

Submit

Retrieved data from table Contain\_Episode, :

**Episode Title**

all



15) Display Program and Episode Title with longest streaming time in Contain\_Episode

Display all tuples in Contain\_Episode:    Display the result of query:

Display the Tuples in Contain\_Episode

Submit

Title ProgramTitle ReleasedDate StreamingTime			
a1	A	22-NOV-21	999999
a2	A	07-OCT-21	110
a3	A	14-OCT-21	115
a4	A	21-OCT-21	118
a5	A	28-OCT-21	122
a6	A	22-NOV-21	1111
a7	A	11-NOV-21	125
all	A	11-NOV-21	120
b1	B	05-NOV-21	50
b2	B	12-NOV-21	55
b3	B	19-NOV-21	48
all	B	11-NOV-21	60
c1	C	08-NOV-21	90
c2	C	15-NOV-21	95
all	C	11-NOV-21	98
d1	D	22-NOV-21	110
d2	D	29-NOV-21	105
d3	D	05-NOV-21	112
d4	D	12-NOV-21	115
d5	D	19-NOV-21	106
all	D	11-NOV-21	110
e1	E	26-SEP-21	40
e2	E	03-OCT-21	45
e3	E	10-OCT-21	46
e4	E	17-OCT-21	43
e5	E	24-OCT-21	44
e6	E	31-OCT-21	45
e7	E	07-NOV-21	40
all	E	11-NOV-21	40
f1	F	31-OCT-21	60
f2	F	07-NOV-21	65
all	F	11-NOV-21	65
g1	G	05-NOV-21	100
g2	G	12-NOV-21	105
g3	G	19-NOV-21	100
all	G	11-NOV-21	100

Display Program and Episode Title with longest streaming time in Contain\_Episode

Submit

Retrieved data from table Contain\_Episode, :  
Program Title Episode Title  
A a1