

Queries Used to Answer Questions About the Data:

1. `select program_id, program_title, month, day, year from
programs order by year asc limit 5;`
2. `select program_id, program_title, month, day, year,
attendance_seats from programs order by attendance_seats desc
limit 5;`
 - a. `select program_id, program_title, month, day, year,
livestream_views from programs order by livestream_views
desc limit 5;`
3. `select fb_id, post_id, name, lifetime_impressions,
lifetime_video_views from facebook_posts order by
lifetime_impressions desc limit 5;`
`select fb_id, post_id, name, lifetime_impressions,
lifetime_video_views from facebook_posts order by
lifetime_video_views desc limit 5;`
`select yt_id, video_code, video_title, views, impressions from
youtube_videos order by impressions desc limit 5;`
`select yt_id, video_code, video_title, views, impressions from
youtube_videos order by views desc limit 5;`
`select p.program_id, p.program_title, f.lifetime_impressions,
f.lifetime_video_views, y.views, y.impressions from programs p
join facebook_posts f on f.fb_id = p.facebook_post_id
join youtube_videos y on y.yt_id = p.youtube_video_id;`
4. `select program_id, program_title, livestream_views from
programs order by livestream_views desc limit 4;`
`select yt_id, video_code, video_title, views from youtube_videos
order by views desc limit 4;`
`select fb_id, post_id, name, content lifetime_video_viewsviews from
facebook_posts order by lifetime_video_views desc limit 4;`
5. `select yt_id, video_code, video_title, views,
total_watch_time_hrs, click_rate from youtube_videos order by
total_watch_time_hrs desc limit 5;`
6. `select fb_id, post_id, name, content, lifetime_impressions,
lifetime_video_views from facebook_posts order by
lifetime_impressions desc limit 5;`
7. `select yt_id, video_title, views, impressions from
youtube_videos where video_code = '10162019_LS';`
`select p.program_series_id, s.series_name,
avg(attendance_seats) as avg_attend, avg(livestream_views) as
avg_liveview from programs p join program_series s on
p.program_series_id = s.series_id group by program_series_id;`

Database Dump

```
mysqldump -h 35.239.81.122  
--port 13316 -u sryanlee-rw -p(password)C2ST_programs >  
c2st_programs_db.sql
```

Database Creation Queries

```
Create schema C2ST_programs;
```

```
create table facebook_posts
```

```
(  
  fb_id int auto_increment,  
  post_id varchar(255) null,  
  code_number varchar(255) null,  
  url varchar(255) null,  
  name varchar(255) null,  
  month int null,  
  day int null,  
  year int null,  
  content text null,  
  post_type_id int null,  
  lifetime_impressions int null,  
  lifetime_video_views int null,  
  lifetime_uni_video_views int null,  
  in_programs_tbl varchar(1) null,  
  constraint facebook_posts_pk  
    primary key (fb_id)  
);
```

```
alter table facebook_posts
```

```
  add constraint facebook_posts_type_id_fk  
    foreign key (post_type_id) references facebook_post_types  
(type_id)  
    on update cascade on delete cascade;
```

```
create table facebook_post_types
```

```
(  
  type_id int auto_increment,  
  type_name varchar(255) null,  
  constraint facebook_post_types_pk  
    primary key (type_id)  
);
```

```
C2ST_programs> INSERT INTO C2ST_programs.facebook_post_types  
(type_name) VALUES ('SharedVideo')  
[2021-04-21 11:53:58] 1 row affected in 125 ms
```

```
C2ST_programs> INSERT INTO C2ST_programs.facebook_post_types
(type_name) VALUES ('Video')
[2021-04-21 11:53:58] 1 row affected in 82 ms
```

```
create table youtube_videos
(
  yt_id int auto_increment,
  video_code varchar(255) null,
  video_id varchar(255) null,
  video_title varchar(255) null,
  month int null,
  day int null,
  year int null,
  views int null,
  total_watch_time_hrs float null,
  subscribers int null,
  impressions int null,
  click_rate float null,
  constraint youtube_videos_pk
    primary key (yt_id)
);
```

```
create table program_types
(
  type_id int auto_increment,
  type_name varchar(255) not null
);
```

```
create unique index program_types_type_id_uindex
on program_types (type_id);
```

```
alter table program_types
add constraint program_types_pk
primary key (type_id);
```

```
create table program_series
(
  series_id int auto_increment,
  series_code varchar(5) null,
  series_name varchar(255) null,
  constraint program_series_pk
    primary key (series_id)
);
```

```

C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('PS', 'Physical Science')
[2021-04-21 11:55:19] 1 row affected in 127 ms
C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('SS', 'Science and Society')
[2021-04-21 11:55:19] 1 row affected in 82 ms
C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('CEE', 'Climate, Energy, and Environment')
[2021-04-21 11:55:19] 1 row affected in 82 ms
C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('LS', 'Life Science')
[2021-04-21 11:55:19] 1 row affected in 82 ms
C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('HW', 'Health and Wellness')
[2021-04-21 11:55:20] 1 row affected in 82 ms
C2ST_programs> INSERT INTO C2ST_programs.program_series (series_code,
series_name) VALUES ('TEI', 'Technology and Engineering')
[2021-04-21 11:55:20] 1 row affected in 82 ms

```

```

C2ST_programs> INSERT INTO C2ST_programs.program_types (type_name)
VALUES ('original')
[2021-04-21 11:56:11] 1 row affected in 118 ms
C2ST_programs> INSERT INTO C2ST_programs.program_types (type_name)
VALUES ('signature')
[2021-04-21 11:56:11] 1 row affected in 80 ms
C2ST_programs> INSERT INTO C2ST_programs.program_types (type_name)
VALUES ('speakeasy')
[2021-04-21 11:56:11] 1 row affected in 79 ms
C2ST_programs> INSERT INTO C2ST_programs.program_types (type_name)
VALUES ('booth')
[2021-04-21 11:56:12] 1 row affected in 80 ms
C2ST_programs> INSERT INTO C2ST_programs.program_types (type_name)
VALUES ('local')
[2021-04-21 11:56:12] 1 row affected in 80 ms

```

```

create table programs
(
    program_id varchar(255) null,
    month int not null,
    day int not null,
    year int not null,
    program_title varchar(255) null,
    program_type_id int not null,
    program_series_id int not null,
    venue varchar(255) null,

```

```

duration_hrs float null,
attendance_seats int null,
livestream_views int null,
num_male_speakers int null,
num_female_speakers int null,
poc_informal int null,
constraint programs_series_id_fk
    foreign key (program_series_id) references program_series
(series_id)
    on update cascade on delete cascade,
constraint programs_type_id_fk
    foreign key (program_type_id) references program_types (type_id)
    on update cascade on delete cascade
);

create unique index programs_program_id_uindex
on programs (program_id);

alter table programs
add constraint programs_pk
    primary key (program_id);

alter table programs
add youtube_video_id int null;

alter table programs
add facebook_post_id int null;

alter table programs
add constraint programs_youtube_video_fk
    foreign key (youtube_video_id) references youtube_videos (yt_id)
    on update cascade on delete cascade;

alter table programs
add constraint programs_facebook_post_fk
    foreign key (facebook_post_id) references facebook_posts (fb_id)
    on update cascade on delete cascade;

```

Value Modifications

```

select yt_id from youtube_videos where in_programs_tbl = 'Y';

select program_id, youtube_video_id from programs where program_id =
(select video_code from youtube_videos where in_programs_tbl = 'Y')

```

```
update programs set youtube_video_id = 3 where program_id = (select
video_code from youtube_videos where yt_id=3)
```

```
update programs set youtube_video_id = 5 where program_id = (select
video_code from youtube_videos where yt_id=5);
update programs set youtube_video_id = 6 where program_id = (select
video_code from youtube_videos where yt_id=6);
update programs set youtube_video_id = 11 where program_id = (select
video_code from youtube_videos where yt_id=11);
update programs set youtube_video_id = 17 where program_id = (select
video_code from youtube_videos where yt_id=17);
update programs set youtube_video_id = 19 where program_id = (select
video_code from youtube_videos where yt_id=19);
update programs set youtube_video_id = 32 where program_id = (select
video_code from youtube_videos where yt_id=32);
update programs set youtube_video_id = 39 where program_id = (select
video_code from youtube_videos where yt_id=39);
update programs set youtube_video_id = 43 where program_id = (select
video_code from youtube_videos where yt_id=43);
update programs set youtube_video_id = 53 where program_id = (select
video_code from youtube_videos where yt_id=53);
update programs set youtube_video_id = 57 where program_id = (select
video_code from youtube_videos where yt_id=57);
update programs set youtube_video_id = 58 where program_id = (select
video_code from youtube_videos where yt_id=58);
update programs set youtube_video_id = 66 where program_id = (select
video_code from youtube_videos where yt_id=66);
update programs set youtube_video_id = 75 where program_id = (select
video_code from youtube_videos where yt_id=75);
update programs set youtube_video_id = 77 where program_id = (select
video_code from youtube_videos where yt_id=77);
update programs set youtube_video_id = 78 where program_id = (select
video_code from youtube_videos where yt_id=78);
update programs set youtube_video_id = 79 where program_id = (select
video_code from youtube_videos where yt_id=79);
update programs set youtube_video_id = 80 where program_id = (select
video_code from youtube_videos where yt_id=80);
update programs set youtube_video_id = 83 where program_id = (select
video_code from youtube_videos where yt_id=83);
update programs set youtube_video_id = 84 where program_id = (select
video_code from youtube_videos where yt_id=84);
update programs set youtube_video_id = 85 where program_id = (select
video_code from youtube_videos where yt_id=85);
update programs set youtube_video_id = 86 where program_id = (select
video_code from youtube_videos where yt_id=86);
```

```
update programs set youtube_video_id = 88 where program_id = (select
video_code from youtube_videos where yt_id=88);
update programs set youtube_video_id = 89 where program_id = (select
video_code from youtube_videos where yt_id=89);
update programs set youtube_video_id = 93 where program_id = (select
video_code from youtube_videos where yt_id=93);
update programs set youtube_video_id = 102 where program_id = (select
video_code from youtube_videos where yt_id=102);
update programs set youtube_video_id = 107 where program_id = (select
video_code from youtube_videos where yt_id=107);
update programs set youtube_video_id = 110 where program_id = (select
video_code from youtube_videos where yt_id=110);
update programs set youtube_video_id = 115 where program_id = (select
video_code from youtube_videos where yt_id=115);
update programs set youtube_video_id = 119 where program_id = (select
video_code from youtube_videos where yt_id=119);
update programs set youtube_video_id = 123 where program_id = (select
video_code from youtube_videos where yt_id=123);
update programs set youtube_video_id = 124 where program_id = (select
video_code from youtube_videos where yt_id=124);
update programs set youtube_video_id = 143 where program_id = (select
video_code from youtube_videos where yt_id=143);
update programs set youtube_video_id = 153 where program_id = (select
video_code from youtube_videos where yt_id=153);
update programs set youtube_video_id = 163 where program_id = (select
video_code from youtube_videos where yt_id=163);
update programs set youtube_video_id = 164 where program_id = (select
video_code from youtube_videos where yt_id=164);
update programs set youtube_video_id = 165 where program_id = (select
video_code from youtube_videos where yt_id=165);
update programs set youtube_video_id = 166 where program_id = (select
video_code from youtube_videos where yt_id=166);
update programs set youtube_video_id = 217 where program_id = (select
video_code from youtube_videos where yt_id=217);
update programs set youtube_video_id = 218 where program_id = (select
video_code from youtube_videos where yt_id=218);
update programs set youtube_video_id = 246 where program_id = (select
video_code from youtube_videos where yt_id=246);
update programs set youtube_video_id = 259 where program_id = (select
video_code from youtube_videos where yt_id=259);
update programs set youtube_video_id = 267 where program_id = (select
video_code from youtube_videos where yt_id=267);
```

```
select program_id, youtube_video_id from programs where
youtube_video_id is not null;
```

```
select fb_id, post_id from facebook_posts where in_programs_tbl =  
'Y';
```

```
update programs set facebook_post_id = 55 where program_id = (select  
post_id from facebook_posts where fb_id=55);  
update programs set facebook_post_id = 56 where program_id = (select  
post_id from facebook_posts where fb_id=56);  
update programs set facebook_post_id = 57 where program_id = (select  
post_id from facebook_posts where fb_id=57);  
update programs set facebook_post_id = 58 where program_id = (select  
post_id from facebook_posts where fb_id=58);  
update programs set facebook_post_id = 59 where program_id = (select  
post_id from facebook_posts where fb_id=59);  
update programs set facebook_post_id = 60 where program_id = (select  
post_id from facebook_posts where fb_id=60);
```

```
select program_id, facebook_post_id from programs where  
facebook_post_id is not null;
```