Mini Project 2 Log

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#JOIN QUERIES

```
select distinct city.Name, city.Population, countrylanguage.Language,
countrylanguage.Percentage
   from countrylanguage
   left join country on countrylanguage.CountryCode=country.Code
   left join city on city.CountryCode=country.Code
   where
   countrylanguage.IsOfficial='T' and countrylanguage.Percentage>90.0 and
city.Population>800000;


select count(*)as official_languages,country_name from (select distinct country.Name as
country_name, countrylanguage.CountryCode, countrylanguage.Language
   from country
   left join countrylanguage on country.Code=countrylanguage.CountryCode
   left join city on city.CountryCode=country.Code
   where
   country.GovernmentForm='Republic' and countrylanguage.IsOfficial='T' )as c1 group by
country_name having official_languages>1;
```

#PROCEDURES

```
DELIMITER $$
CREATE PROCEDURE life_expectancy(IN low FLOAT, IN high FLOAT, OUT count INT)
proc_label:BEGIN
IF (low < 0) OR (low > 100) OR (high < 0) OR (high > 100) THEN
SELECT 'ERROR! INVALID RANGE.';
LEAVE proc_label;
END IF;
SELECT Name FROM country WHERE LifeExpectancy > low AND LifeEXpectancy < high;
SELECT COUNT(*) INTO count FROM (SELECT Name FROM country WHERE
LifeExpectancy > low AND LifeEXpectancy < high) as t;
END$$
DELIMITER ;
```

```
DELIMITER $$
CREATE PROCEDURE cities(IN country VARCHAR(30), IN district VARCHAR(50), OUT count
INT)
BEGIN
SELECT city.Name, District, country.Name FROM country
LEFT JOIN city ON city.CountryCode = country.Code
WHERE
country.Name = country AND city.District = district;
SELECT COUNT(*) INTO count FROM (SELECT city.Name FROM country
LEFT JOIN city ON city.CountryCode = country.Code
WHERE
country.Name = country AND city.District = district) as t;
END$$
DELIMITER ;
```

#INDEXES

```
SET profiling = 1;
SHOW PROFILES;
SHOW PROFILE FOR QUERY 1;

mysql> show indexes from city;
Empty set (0.00 sec)
select * from city where Population<2000000;
create index btree_city on city(Population) using btree;
create index hash_city on city(Population) using hash;
select * from city use index(btree_city) where Population<2000000;
select * from city use index(hash_city) where Population<2000000;
```

Query_ID	Duration	Query
1	0.00435000	select * from city where Population<2000000
2	0.08266775	select * from city use index(btree_city) where Population<2000000
3	0.00438325	select * from city use index(hash_city) where Population<2000000