**URL SHORTENER**

**Database**

urllinker (shorturl, originalurl, urlcreatetime, emailid, ip)

urlanalytics (shorturl, ip, numtimeaccessed)

urllocation (shorturl, location, time)

urluserinfo (firstname, lastname, email, password, ip)

**Pages (5)**

1. **Main Page**

* Short Link

1. **Login**

* Login with:
  + Email & Password
  + Third Party Login

1. **Signup**

* Signup with:
* Email (User Details)
* Third Party Signup

1. **User Dashboard**:

* List of URLs

1. **Analytics**:

* Shorturl
* Locations (List or if possible, show on map) \*
* No. of times Links Accessed \*
  + Unique users
  + Total Users (In a pie chart or circular chart)
* Time (Will show in terms of graph [bar graph]) \*
* Top day (Will show in terms of graph [bar graph]) \*

**Query Planning for Analytics**

* Location

Select location, count(\*), count(\*)\*100/(select count(\*) from urllocation where shorturl = $1) as percentage from urllocation where shorturl = $1 group by location;

[shorturl]

* Total users & Distinct Users

SELECT SUM(CAST(numtimeaccessed AS numeric)) AS totaltimeaccessed, COUNT(DISTINCT ip) AS distinctusers FROM urlanalytics where shorturl = $1 GROUP BY shorturl;

[shorturl]

* Top Day:

SELECT CASE

WHEN EXTRACT(DOW FROM time) = 0 THEN 'Sunday'

WHEN EXTRACT(DOW FROM time) = 1 THEN 'Monday'

WHEN EXTRACT(DOW FROM time) = 2 THEN 'Tuesday'

WHEN EXTRACT(DOW FROM time) = 3 THEN 'Wednesday'

WHEN EXTRACT(DOW FROM time) = 4 THEN 'Thursday'

WHEN EXTRACT(DOW FROM time) = 5 THEN 'Friday'

WHEN EXTRACT(DOW FROM time) = 6 THEN 'Saturday'

END AS day, COUNT(\*) AS count\_per\_hour FROM urllocation WHERE shorturl = $1 GROUP BY shorturl, day ORDER BY shorturl, day;

[shorturl]

* Hours (Interval wise):

SELECT

CASE

WHEN EXTRACT(HOUR FROM time) = 0 THEN '0'

WHEN EXTRACT(HOUR FROM time) = 1 THEN '1'

WHEN EXTRACT(HOUR FROM time) = 2 THEN '2'

WHEN EXTRACT(HOUR FROM time) = 3 THEN '3'

WHEN EXTRACT(HOUR FROM time) = 4 THEN '4'

WHEN EXTRACT(HOUR FROM time) = 5 THEN '5'

WHEN EXTRACT(HOUR FROM time) = 6 THEN '6'

WHEN EXTRACT(HOUR FROM time) = 7 THEN '7'

WHEN EXTRACT(HOUR FROM time) = 8 THEN '8'

WHEN EXTRACT(HOUR FROM time) = 9 THEN '9'

WHEN EXTRACT(HOUR FROM time) = 10 THEN '10'

WHEN EXTRACT(HOUR FROM time) = 11 THEN '11'

WHEN EXTRACT(HOUR FROM time) = 12 THEN '12'

WHEN EXTRACT(HOUR FROM time) = 13 THEN '13'

WHEN EXTRACT(HOUR FROM time) = 14 THEN '14'

WHEN EXTRACT(HOUR FROM time) = 15 THEN '15'

WHEN EXTRACT(HOUR FROM time) = 16 THEN '16'

WHEN EXTRACT(HOUR FROM time) = 17 THEN '17'

WHEN EXTRACT(HOUR FROM time) = 18 THEN '18'

WHEN EXTRACT(HOUR FROM time) = 19 THEN '19'

WHEN EXTRACT(HOUR FROM time) = 20 THEN '20'

WHEN EXTRACT(HOUR FROM time) = 21 THEN '21'

WHEN EXTRACT(HOUR FROM time) = 22 THEN '22'

WHEN EXTRACT(HOUR FROM time) = 23 THEN '23'

END AS hourinterval, COUNT(\*) AS countperhour FROM urllocation WHERE shorturl = 'pyYw8' GROUP BY shorturl, hourinterval ORDER BY shorturl, hourinterval;

[shorturl]