SQL Project : Remote Work Health Impact Analysis (2025)

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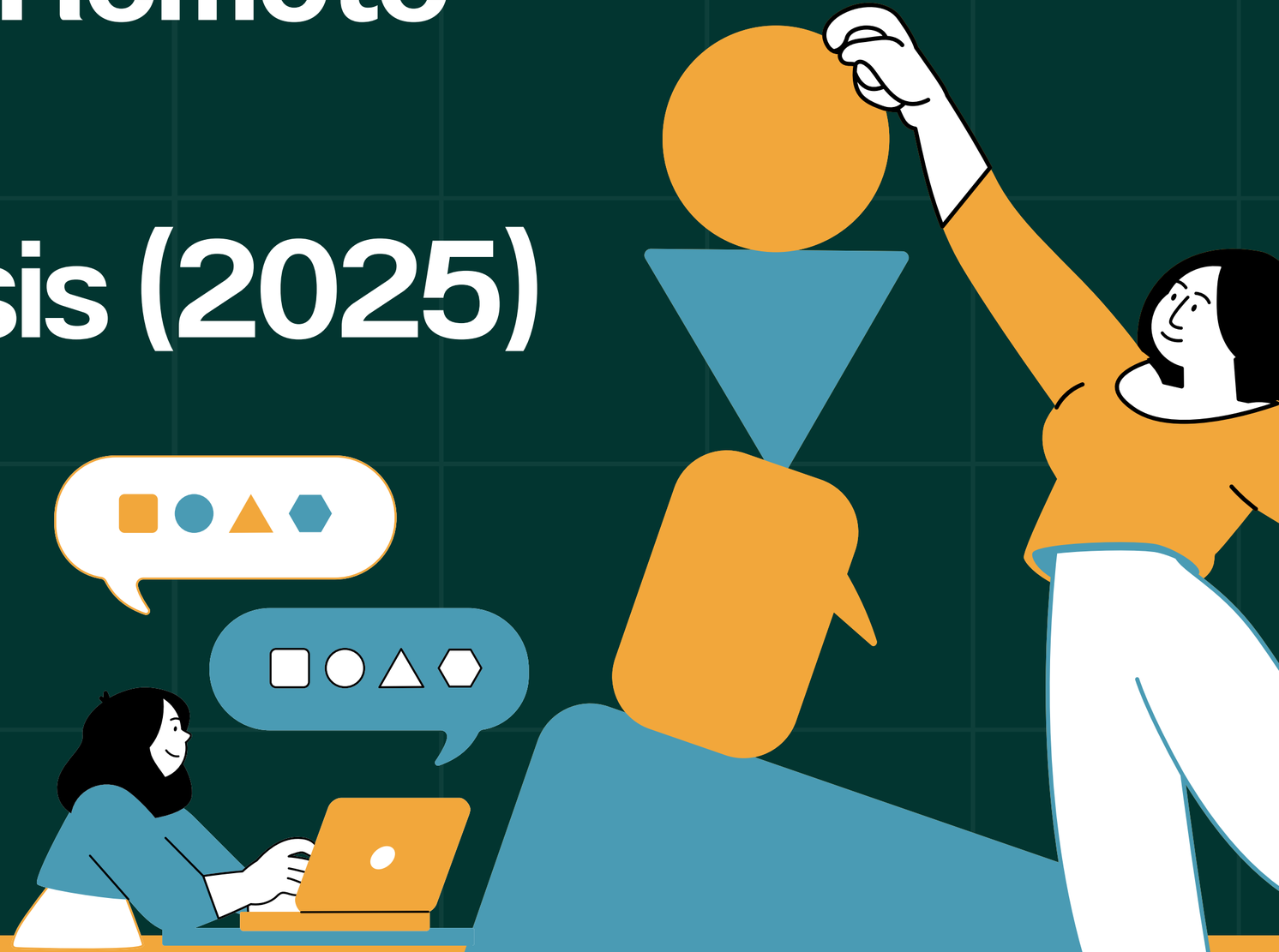

Project Overview

- Objective: Analyze health impacts of remote work and other aspects using survey data from 2025.
- Tools Used: SQL (MySQL), MS Excel, Data Analysis Techniques.
- Dataset: 3,000+ survey records with multiple health, work, and demographic parameters.

Create and Use Database

```
create database survey_db;

use survey_db;
```

To view counts of data and everthing from survey

```
select count(*) from survey;

select * from survey;
```

Finding Null values

```sql
select * from survey
where Survey_date is null
or Age is null
or Age_group is null
or Gender is null
or Industry is null
or Job_role is null
or Work_arrangement is null
or hours_per_week is null
or Mental_health_status is null
or Burnout_level is null
or Burnout_score is null
or Work_life_balance_score is null
or Physical_health_issues is null
or Social_isolation_score is null
or Salary_range is null;
```

Data Exploration

how many survey responses we have?

```sql
select count(*) as survey_responses from survey;
```

survey_responses
3157

How many unique dates we have?

```sql
select count(distinct survey_date) as count_of_unique_dates from survey;
```

count_of_unique_dates
26

what all unique regions we have?

```sql
select distinct region from survey;
```

region
Africa
Europe
Asia
Oceania
South America
North America

Data Analysis & Key Problems and Answers

Total Burnout Score by Work Arrangement

```sql
select work_arrangement, round(sum(burnout_score),2) as total_burnout_score
from survey
group by work_arrangement;
```

work_arrangement	total_burnout_score
Onsite	7835
Hybrid	5742
Remote	3628

Mental Health Issue Distribution by Region

```sql
select region, Mental_health_status, count(*) as cases
from survey
group by region, Mental_health_status
order by region, cases desc;
```

region	Mental_health_status	cases
Africa	None	117
Africa	Depression	78
Africa	PTSD	77
Africa	Anxiety	72
Africa	Stress Disorder	72
Africa	Burnout	59
Africa	ADHD	57
Asia	None	114
Asia	PTSD	85
Asia	Burnout	83
Asia	Anxiety	66
Asia	Stress Disorder	59
Asia	Depression	57

Physical Health Issues by Industry

```sql
select industry, count(*) as cases
from survey
where physical_health_issues is not null and physical_health_issues <>'None'
group by industry
order by cases desc;
```

industry	cases
Professional Services	659
Technology	544
Finance	335
Manufacturing	331
Education	270
Healthcare	224
Marketing	186
Retail	168
Customer Service	160

Avg Work Hours & Burnout by Age Group

```sql
select age_group,
round(avg(hours_per_week), 2) as avg_hours,
round(avg(burnout_score),2) as avg_burnout
from survey
group by age_group
order by avg_burnout desc;
```

age_group	avg_hours	avg_burnout
51-65	49.95	5.50
20-35	49.73	5.47
36-50	50.02	5.38

Top 5 Roles with Highest Burnout

```sql
select job_role,
round(avg(burnout_score),2) as avg_burnout
from survey
group by job_role
order by avg_burnout desc
limit 5;
```

job_role	avg_burnout
HR Manager	5.91
Software Engineer	5.80
Business Analyst	5.73
Sales Representative	5.68
Data Scientist	5.64

Average Work-Life Balance by Age Group

```sql
select age_group,
round(avg(work_life_balance_score), 2) as avg_wlb
from survey
group by age_group
order by avg_wlb desc;
```

age_group	avg_wlb
20-35	3.04
36-50	2.98
51-65	2.97

Most Common Physical Health Issues

```sql
select physical_health_issues,
count(*) as cases
from survey
where physical_health_issues is not null and physical_health_issues <>'none'
group by job_role, physical_health_issues
order by cases desc;
```

physical_health_issues	cases
Back Pain; Shoulder Pain	15
Eye Strain	15
Back Pain; Eye Strain	15
Eye Strain	15
Shoulder Pain	15
Eye Strain	14
Back Pain; Shoulder Pain; Eye Strain	14
Back Pain; Eye Strain	14
Back Pain; Shoulder Pain; Eye Strain	14
Back Pain; Shoulder Pain; Eye Strain	14
Shoulder Pain; Eye Strain	14
Back Pain; Shoulder Pain; Eye Strain	13
Shoulder Pain	13

physical_health_issues	cases
Back Pain; Eye Strain	19
Eye Strain	19
Eye Strain	19
Shoulder Pain; Eye Strain	19
Shoulder Pain	17
Shoulder Pain; Eye Strain	17
Back Pain; Shoulder Pain; Eye Strain	17
Back Pain	17
Back Pain; Shoulder Pain; Eye Strain	16
Shoulder Pain; Eye Strain	16
Back Pain; Shoulder Pain; Eye Strain	16
Back Pain; Shoulder Pain	16
Back Pain	16

Salary Range vs. Average Burnout

```sql
select salary_range, round(avg(burnout_score),2) as avg_burnout
from survey
group by salary_range
order by avg_burnout desc;
```

salary_range	avg_burnout
$40K-60K	5.65
$80K-100K	5.52
$120K+	5.52
$100K-120K	5.37
$60K-80K	5.30

Top 10 Job roles vs. Social islolation total

```sql
select job_role, sum(social_isolation_score) as isolation_count
from survey
group by gender, job_role
order by isolation_count desc limit 10;
```

job_role	isolation_count
DevOps Engineer	213
Data Scientist	210
Business Analyst	209
Research Scientist	200
Social Media Manager	200
HR Manager	199
UX Designer	198
Research Scientist	198
Operations Manager	198
IT Support	197

Job-role vs Average burnout

```sql
select *
from (select job_role, round(avg(burnout_score),2) as avg_burnout
from survey
group by job_role
order by avg_burnout desc) as survey_data;
```

job_role	avg_burnout
HR Manager	5.91
Software Engineer	5.80
Business Analyst	5.73
Sales Representative	5.68
Data Scientist	5.64
Executive Assistant	5.63
Content Writer	5.60
Marketing Specialist	5.60
Product Manager	5.53
Data Analyst	5.52
IT Support	5.52
Consultant	5.45
Research Scientist	5.43
Operations Manager	5.40
Customer Service…	5.39
Project Manager	5.35
Technical Writer	5.35
Digital Marketing Sp…	5.31
DevOps Engineer	5.30
Financial Analyst	5.29
UX Designer	5.28
Social Media Manager	5.21
Quality Assurance	5.03
Account Manager	4.89

Highest Burnout Job Role per Region

```sql
SELECT region, job_role, avg_burnout
FROM (SELECT region, job_role,
    ROUND(AVG(burnout_score), 2) AS avg_burnout,
    RANK() OVER (PARTITION BY region ORDER BY AVG(burnout_score) DESC) AS ranked
    FROM survey
    GROUP BY region, job_role) AS survey_data
    where ranked =1;
```

region	job_role	avg_burnout
Africa	Executive Assistant	6.57
Asia	UX Designer	6.71
Europe	Sales Representative	7.00
North America	Product Manager	6.30
Oceania	Marketing Specialist	6.60
South America	HR Manager	7.48

Mental_health_status by Remote_work_arrangement

```sql
SELECT mental_health_status,
       COUNT(*) AS total_employees
FROM survey
where work_arrangement = 'Remote' and mental_health_status <> 'None'
GROUP BY mental_health_status
ORDER BY total_employees DESC;
```

mental_health_status	total_employees
PTSD	78
Anxiety	75
ADHD	71
Stress Disorder	71
Depression	67
Burnout	63

📊 Key Insights Summary

- ✅ Onsite employees are the largest group, followed by hybrid and remote.
- ✅ Mental health issues vary notably across regions.
- ✅ Physical health problems are highest in professional services, tech, and finance.
- ✅ 36–50 age group works the longest hours with the lowest burnout.
- ✅ HR, Software Engineers, Business Analysts, Sales Representatives and Data Scientists have the highest burnout.
- ✅ 20–35 age group reports the best work-life balance.
- ✅ Remote workers report more PTSD, anxiety, ADHD, depression, and burnout.

Key Recommendations

- ✅ Support Mental Health
- Introduce counseling, wellness programs, and anonymous feedback.
- ✅ Promote Flexibility
- Enable flexible hours and hybrid work to boost work-life balance.
- ✅ Target High-Burnout Roles
- Adjust workloads and offer tailored support for stressful roles.
- ✅ Improve Physical Well-being
- Provide ergonomic setups, health initiatives, and fitness programs.
- ✅ Foster Social Connection
- Create virtual meetups and team-building activities for remote staff.

Thank you!