MENTAL HEALTH DASHBOARD (PREDICTIVE)

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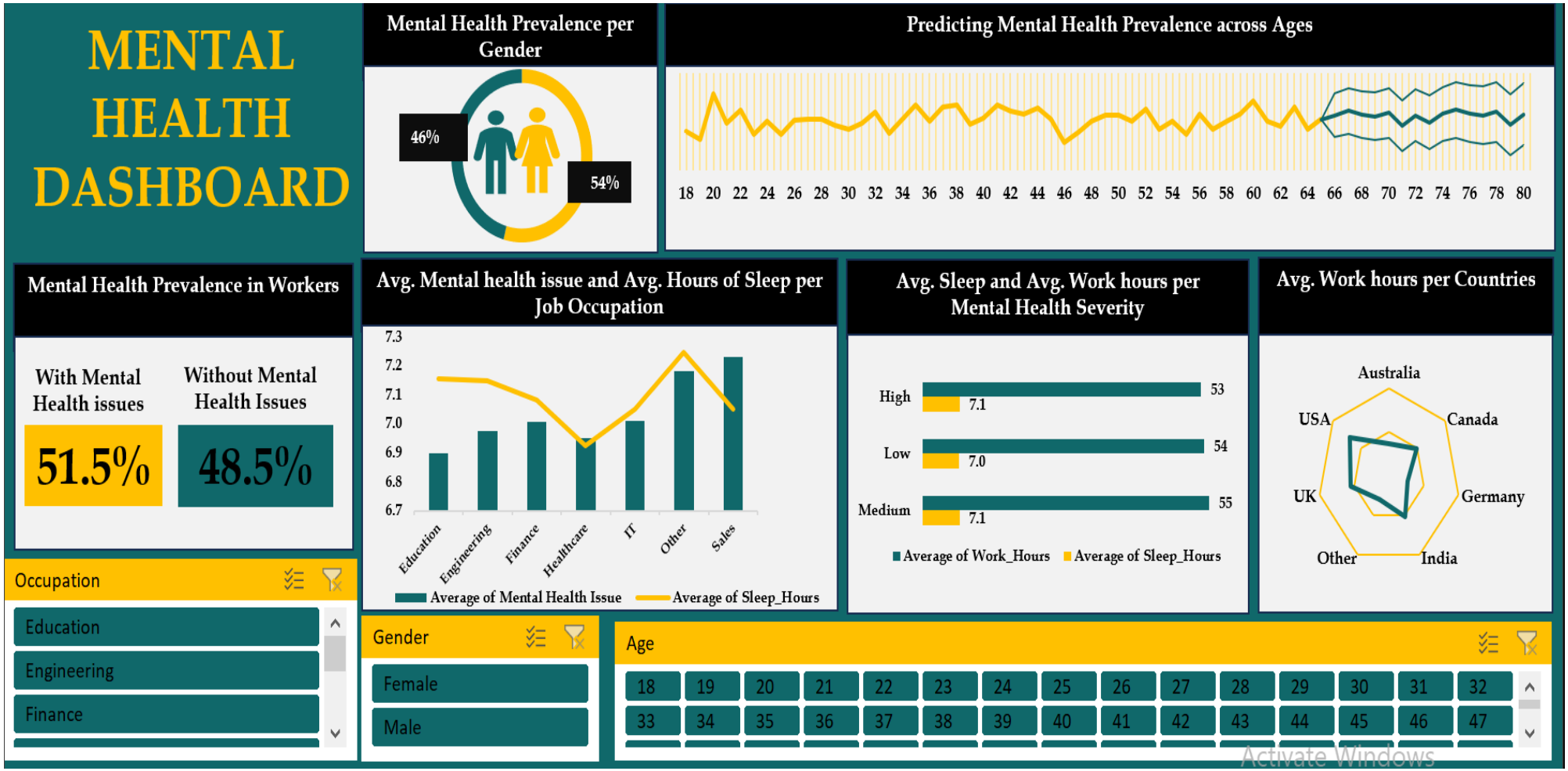
Overview of the project

This data was downloaded from Kaggle of 1000 participants' mental health record . It contains 1000 rows and 13 columns (User_ID, Age, Gender, Occupation, Country, Mental Health Check, Mental_Health_Condition, Mental health Severity, Consultation_History, Stress_Level, Sleep_Hours, Work_Hours & Physical_Activity_Hours).

The goal of the project was to underline the prevalence of mental health issues, understand how factors like gender, age, number of hours slept, work hours and type of jobs can affect the mental health of individuals. While forecasting the trend of mental health issues as individuals get older.

Below is a snapshot of the Dashboard with graphs and functional filters.



Key Insights:

From the data, we see that:

- 51.5% of the respondent admitted to having mental health issues.
- Of those with mental health issues, 54% were women while 46% and men.
- From the graph of **"Avg. Mental health issues and Avg. Hours of Sleep per Job Occupation"** we noticed that careers in education in average have the highest hours of sleep and least mental health issues. But healthcare staffs in average have the least amount of sleep while occupations in "Sales" have in average the highest cases of mental health.
- From the graph of **"Avg. Sleep and Avg. Work hours per Mental Health Severity"** the visualization highlights an inverse relationship between average sleep hours and mental health severity, with sleep hours decreasing as severity increases. Simultaneously, average work hours rise steadily with increasing mental health severity.
- From the Radar Workers in USA work the longest hours in average to other countries.
- From the line chart of **"Predicting Mental Health Prevalence across Ages"**, it shows that highest mental health prevalence is observed at ages 36–44, where the values consistently remain at 1, indicating high prevalence. The lowest prevalence is at ages 18, 19, and similar intervals where values are 0. The predictions from age 65 onward suggest a general continuation of mental health prevalence, with a forecast value of 1 in many cases. However, the inclusion of lower and upper confidence bounds (0 and 1) highlights uncertainty in these predictions. This means that while the forecast leans towards high prevalence (1), there is also a possibility of no prevalence (0) in certain scenarios, reflecting variability or potential external influences affecting mental health outcomes in the predicted range.
- There are slicers for Gender, Occupation and Age, for deeper dive into the data.

Decision-Making Advices:

1. **Mental Health Support in Sales:** Invest in workplace mental health programs and counseling services to reduce stress for employees in sales roles.
2. **Better Sleep for Healthcare Staff:** Optimize shift schedules and promote work-life balance to improve sleep and mental health in healthcare occupations.
3. **Work-Life Balance in the USA:** Introduce flexible hours, mandatory rest breaks, and vacation incentives to reduce long work hours and improve well-being.

4. **Targeted Age-Based Interventions:** Focus mental health resources on ages 36–44 and implement preventive measures for younger individuals.
5. **Gender-Specific Programs:** Address unique challenges faced by women with tailored mental health initiatives to ensure equitable support.
6. **Adaptive Strategies for Older Populations:** Develop flexible approaches to manage varying mental health trends among those aged 65 and above.

You can download the full Excel file with the dataset, visualizations and dashboard with functional filters here for further insights. Download