


# ASSIGNMENT ON

## Healthcare Analytics Dashboard

**DATASET LINK -**  Healthcare\_Analytics Dataset.xlsx

### 1. Data Modeling

- Import all 4 sheets (**Patients, Doctors, Appointments, Treatments**) into Power BI.
- Build a **star schema**:
  - Appointments fact → linked with Patients & Doctors
  - Treatments fact → linked with Patients & Doctors
- Create a **Date table** for appointment/treatment timelines.

### 2. DAX Measures

- Total Patients (active)
- Total Appointments & Avg Fee per Appointment
- Treatment Cost per Patient
- Successful Treatment Rate %
- Avg Doctor Utilization = Appointments per Doctor
- Patient Retention Rate (patients with  $\geq 2$  appointments in a year)
- Follow-up Appointment %

### 3. Visualizations

- **Executive Overview Page**
  - KPIs: Total Patients, Total Appointments, Avg Fee, Treatment Success Rate
  - Appointment trend by Month (In-Person vs Telehealth)
  - Patients by Region & Insurance Type
- **Doctor Performance Page**
  - Appointments per Doctor & per Specialty
  - Avg Fee & Treatment Outcomes by Specialty
  - Doctor Utilization ranking
- **Patient Insights Page**
  - Age group distribution vs Appointment type

- Retention Rate by Insurance Type
- Cost per Patient (histogram)
- **Treatment Analysis Page**
  - Treatment Costs by Type & Outcome
  - Success Rate by Specialty
  - Follow-up Rate by Treatment Type

#### 4. Advanced Features (IF POSSIBLE ADD BELOW FEATURES)

- **Row-Level Security (RLS):** Regional heads see only their region's patients & doctors.
- **Drill-through:** From Doctor Performance → Detailed Doctor Profile (Appointments + Treatments).
- **Tooltips:** On Patient visuals, show Avg Treatment Cost & Outcome Rate.

## DELIVERABLES

1. **.pbix** file with all dashboards.
2. Short report documenting:
  - Model design
  - Key DAX measures
  - Analysis result