

Practice Exercise: MS Excel Basics

The following is a post-class exercise for practicing Excel functionalities.

Note: This is neither a graded assessment nor has any time restraints for completion.

Case Study Number & Title	2. Analyzing medical costs data for drawing inferences on charges incurred
Introduction	
Learning Outcomes	
Background Information	The dataset contains records of clients of an insurance provider, detailing out the medical charges incurred for the treatment(s) availed by that individual.
Scenario	
Problem Statement/ Business Objectives	Analyze the medical costs data to discern the insurance company's operations and explore using Excel to extract relevant insights.
Data, Information for Case Analysis	<p>Data is provided as an xlsx file. Below is the source and attribute information.</p> <p>Source link: https://www.kaggle.com/datasets/mirichoi0218/insurance?resource=download</p> <p>Data Description age: Age of primary beneficiary sex: Insurance contractor gender; female, male bmi: Body mass index providing an understanding of body; weights that are relatively high or low relative to height; objective index of body weight (kg/m²) using the ratio of height to weight, ideally 18.5 to 24.9 children: Number of children covered by health insurance / number of dependents smoker: Whether the individual has smoking habit or not region: The beneficiary's residential area in the US; northeast, southeast, southwest, northwest charges: Individual medical costs billed by health insurance</p>
Questions	<ol style="list-style-type: none"> Find out the average BMI for each gender. Create a "weight" column wherein the values based on bmi would be as follows: <ul style="list-style-type: none"> <18.5 – Underweight >25 – Overweight Else, Healthy Which region has incurred the highest average charges? Visualize region wise average charges using suitable chart. What can you infer about the bmi of an individual with smoking habit?
Solution	A sample solution also provided with the dataset
Deliverables for Solution and Rubric	Non-graded assessment
Key Takeaways/Results	Analyzing data using MS Excel and deriving meaningful insights which aids in decision making.