1) Introduce the problem and define "healthy "and "cost".

Healthy - It is always assumed that "healthy" food has some nutritional features and ingredients present, according to the basic assumptions and theory of the term. According to the assignment's context, attributes like low-fat, organic, gluten-free, sugar-conscious, keto-friendly, paleo-friendly, low sodium, and kosher describe a dish as either "healthy" or "unhealthy." With all the medical research, lab tests, and professional opinions, it can be easily identified. Nevertheless, it is always advised to eat well. What keeps one's mind, body, and soul at peace is healthy nourishment. So, a healthy and happy life is more dependent on what goes within the body.

As an illustration, it is always advised to choose fruits, vegetables, and milk over burgers, pizza, and other fatty foods. Due to the high nutritional value of the fruits, vegetables, and milk, which makes it a nutritious food, it is highly self-explanatory.

Cost: Anything that is produced or exchanged in order to own, purchase, or receive something in return is considered a cost. Cost is defined as low-cost or expensive depending on the product's size, number, location, availability, and importance. These are the few factors that, at their finest, aid in cost definition. Cost can also be described as the net income, gross revenue, and purchasing power parity (PPP) of a currency on a more general level. A cost is always a relative term when it comes to the average expectation of the particular product under the existing circumstances and market environment of the nation. Serving size, calories, and other nutritional parameters are used to define whether a food is considered to be "expensive" or "cheap" in the context of the assignment.

An easy way to describe whether a cost is expensive or inexpensive with regard to PPP is to use a transaction involving the purchase of something in two distinct currencies. What is less expensive in the USA could not always be less expensive in Indonesia or Philipines.

2) Answer to the Business question. "Do healthier food cost less"?

In this study, "healthy food" is defined as a product that adheres to any one of the characteristics of the diets described in the database's online research, which have been condensed to the following: organic, sugar-conscious, whole foods diet, low sodium, low fat, and engine-2. These lifestyle choices have not been regarded as healthy, as we are attempting to analyze in this assignment, because they are either practices that people follow because they believe they should (vegan, vegetarian, dairy-free, and kosher), or because they are followed because they have a disease or are intolerant to a substance (like dairy and gluten).

It is also not thought to be healthy because research has shown that eating a keto-friendly diet can lead to a number of significant health risks, such as vitamin deficiencies and liver problems. Due to the potential health concerns of the diet, being Paleo-friendly is also not regarded as being healthy.

Because it allows comparisons to be made between different meals based on how customers will consume them—that is, according to price and calories—price of food item has been utilized as the cost comparison metric.

Two Sample One Tailed t-Test

Performed on price per serving of healthy group and unhealthy group <u>for the entire sample</u> with 95%

confidence interval

H_0: Healthy food costs more than or equal to unhealthy food

H_1: Healthy Food costs less than unhealthy food

t-Test: Two-Sample Assuming Unequal Variances

	Healthy	Unhealthy
Mean	5.75	3.70
Variance	939.22	22.34
Observations	198.00	75.00
Hypothesized Mean Difference	0.00	
df	220.00	
t Stat	0.91	
P(T<=t) one-tail	0.18	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.36	
t Critical two-tail	1.97	

P value (0.18) for one tail is greater than α (0.05). Therefore, null hypothesis is accepted.

This means that <u>healthier foods cost more</u>

3) Three actionable insights.

a) First actionable insight is comparing the price and calories of food containing bread. The price ranges from $419 to $799, while the calorie ranges from 20 to 449 per serving. The product Scandinavian oat crispbread costs less for its 20 calories.

b) Comparing the price and calorie content of bread and tortilla reveals that the bread is more expensive and has 140 more calories than the tortilla. Bread is more expensive and has less calories than tortillas, in comparison.

c) Bread and tortillas dairy free comparison – Bread is more dairy free compared to tortillas.