台北旅遊規劃小助手

題目情境：

正逢新冠疫情結束與旅遊季節，國內旅遊經濟復甦，不少遊客準備四處探訪，為了讓遊客能夠更妥善且有效率的安排旅遊行程，台北市政府設計了一個叫做「旅遊規劃小助手」的簡易APP，讓遊客能輕鬆將六個景點「台北101、南港展覽館、兒童新樂園、中正紀念堂、木柵動物園、士林夜市」整理並安排行程與前往順序，並針對遊客能給予的交通預算推算出最合適的前往路線與工具。

請根據以下的要求與指示，寫出一個java程式：

1. Create **Attraction** class

Attraction	
Modifier and type	**Method (or Variable) and description**
Instance variable	
double	siteX The first site.
double	siteY The second site.
Constructor	
Attraction(double x, double y) Enable to instantiate a Attraction object with a given siteX and siteY.	
Instance Methods	
-	2 getter for 2 attributes (getSiteX(),getSiteY()).
double	getDistanceFromLatLonInKm (double lat1,double lon1,double lat2,double lon2)

2. Create **GoShare** class

GoShare	
Modifier and type	**Method (or Variable) and description**
Instance variable	
String	name The name of goshare.
double	costPerKm The cost per kilometer of goshare.

double	speed The speed of goshare.
double	cost The total cost of goshare.
Constructor	
GoShare(String name,double spend,double speed) Enable to instantiate a GoShare object with a given name, spend and speed.	
Instance Methods	
-	2 getter for 2 attributes (getSiteX(),getSiteY()).
double	calCost(double distance)

3. Create **Site** class

GoShare	
Modifier and type	**Method (or Variable) and description**
Instance variable	
String	name The name of it.
Constructor	
Site(String name, double sitex, double sitey) Enable to instantiate a Site object with a given name, sitex and sitey.	
Instance Methods	
-	1 getter for 1 attributes (getName()).

4. Create **Taxi** class

Taxi	
Modifier and type	**Method (or Variable) and description**
Instance variable	
String	name The name of Taxi.
double	costPerKm The cost per kilometer of Taxi.

double	speed The speed of Taxi.
double	cost The total cost of Taxi.
Constructor	
Taxi(String name, double spend, double speed) Enable to instantiate a Taxi object with a given name, spend and speed. The cost must be set as 0, and the costPerKm must be set as 5.	
Instance Methods	
double	calCost(double distance)

5. Create **Transportation** class

Transportation	
Modifier and type	**Method (or Variable) and description**
Instance variable	
String	name The name of the transportation.
double	costPerKm The cost per kilometer of the transportation.
double	speed The speed of the transportation.
double	cost The total cost of the transportation.
double	time The time cost of the transportation.
Constructor	
Transportation(String name, double spend, double speed) Enable to instantiate a Taxi object with a given name, spend and speed.	
Instance Methods	
boolean	**cost(int budget,double distance)** If the budget is higher or equal please return true, otherwise return false.
double	**time(double distance)** Calculate the time of the transportation cost.

double	calCost(double distance)
String	getinfo()