Data Analysis In-Class Worksheet #05: Team Project TP01

Which of the following do you need to include in the TP01 submission?
Hypotheses Executive Summary Topic Questions
Predictive vs. Prescriptive Topic Question Which of the following statements is true? □ Predictive topic questions must include IVs, whereas prescriptive topic questions do not. ☑ Predictive questions must include the verb predict, whereas prescriptive questions can include a verb from a list of potential choice words. □ Prescriptive questions must include the verb prescribe, whereas predictive questions can include a verb from a list of potential choice words.
Topic question vs. hypothesis Which of the following statements is true? ☐ Topic questions must be factual statements, whereas hypotheses must end with question marks. ☑ Hypotheses must be statements, whereas topic questions must end with question marks. ☐ Topic questions must start with an Independent Variable, whereas hypotheses must start with the word what. ☐ One must specify specific Independent Variable(s) in a topic question.
The Tiger Team wants to know what influences real estate prices in the Williamsburg area. Help them outline these key elements of this topic:
State their topic question:
What factors drive/impact/explain/influence/affect real estate prices in the Williamsburg area?
This is a ☐ descriptive ☑ prescriptive ☐ predictive topic

Propose one hypothesis based on this topic question:

Distance from William & Mary campus affects real estate prices. Historical significance of the area impacts real estate prices.

question.

Age of the property affects real estate prices.
Their Dependent Variable (DV) is real estate prices It is ☑ numeric ☐ categorical.
Their Independent Variable (IV) is Distance (Numeric), Historical significance (Categorical), _ Access to community offerings (Categorical), _ Age of the property (numeric)
The DV should be present in the topic question not the hypothesis the hypothesis not the topic question both the topic question and the hypothesis
The IV should be present in the topic question not the hypothesis the hypothesis not the topic question both the topic question and the hypothesis
The Honeybee Team wants to know what predicts the stock price of Nvidia. Help them outline these key elements of this topic:
State their topic question:
What factor(s) predict the stock price of Nvidia?
This is a ☐ descriptive ☐ prescriptive ✔ predictive topic question.
Propose one hypothesis based on this topic question:
Nvidia's earnings-per-share (EPS) positively predicts its stock price. Global demand for AI chips positively predicts Nvidia's stock price. Nvidia's net income positively predicts its stock price. Nvidia's R&D expenditure positively predicts its stock price.
Their Dependent Variable (DV) is Nvidia's stock price It is ☑ numeric ☐ categorical.
Their Independent Variable (IV) is Earnings-per-share (EPS), global demand for AI chips, net income, R&D expenditure
It is ♥ numeric [categorical.

Practice writing a predictive topic question:	
What factors predict Nvidia's stock price?	

Practice writing a hypothesis for the above topic question: Nvidia's earnings-per-share (EPS) positively predicts its stock price.

Practice writing a prescriptive topic question: What factors influence Nvidia's stock price?