**True or False: A larger hypothesis space always leads to better model performance.**

* True
* False

Ans : False

**True or False: Overfitting occurs when the hypothesis space is too complex for the given data.**

* False
* True

Ans : True

**You are a data scientist working on a binary classification problem. You have tried two different models for the task. Model A uses a simple hypothesis space with a linear model, while Model B employs a more complex hypothesis space with a high-degree polynomial. After evaluating both models, you notice that Model B fits the training data almost perfectly, but its performance on new, unseen data is not as good. On the other hand, Model A generalizes better to unseen data.**

1. Based on this scenario, which model is likely suffering from overfitting?
2. Model B, because it fits the training data almost perfectly.
3. Both models are suffering from overfitting.
4. Neither model is suffering from overfitting.
5. Model A, because it uses a linear hypothesis space.

Ans:1