

## منطقی نیست؟

Use resolution algorithm to solve the following problem.

1.  $\forall x: food(x) \rightarrow likes(john, x)$
2.  $food(apple) \wedge food(vegetables)$
3.  $\forall x \forall y: eats(x, y) \wedge \neg killed(x) \rightarrow food(y)$
4.  $\forall x \forall y: food(y) \wedge eats(x, y) \rightarrow alive(x)$
5.  $eats(Sara, Peanuts) \wedge alive(Sara)$
6.  $\forall x: eats(Sara, x) \rightarrow eats(Harry, x)$
7.  $\forall x: alive(x) \rightarrow \neg killed(x)$
8.  $\forall x: \neg killed(x) \rightarrow alive(x)$

Queries:

- $likes(john, Peanuts)$
- $alive(Harry)$

## پیش بینی قیمت خودرو

۱. Import "Cars prices" .csv file into your notebook and read it by Pandas python library.
۲. Drop rows with **NaN** entries.
۳. Is this supervised or unsupervised learning? Why? **PDF**
۴. Plot whole features with Pandas.DataFrame.plot function.
۵. Write a short description about dataset distribution. **PDF**
۶. Separate engine size and price features in a new Dataframe.
۷. Calculate linear regression between engine size and price features with Gradient descent method. ( Use SKlearn library )
۸. After creating your model, test it with 20% of data.
۹. Plot engine size and price features with regression line (Scatter plot).
۱۰. How much is this model accurate ( Use SKlearn library )? **PDF**
۱۱. Write a sample function that get engine size and returns predicted price of car.

*Please complete whole project on your own.*

*Download the dataset files from Telegram channel.*