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1a. Yes this can be considered a data mining task. Data mining involves extracting useful patterns or knowledge from large dataset. In this case, the image analyst wants to automatically detect the number of distinct object in the image which requires analyzing the data to identify and differentiate the objects. The analysts does not have any prior information about the objects, so they need to apply data mining techniques to explore the ~~extract~~ relevant features or patterns from the image data. This could involve using image processing algorithms, machine learning techniques or computer vision methods to segment the objects and count them.

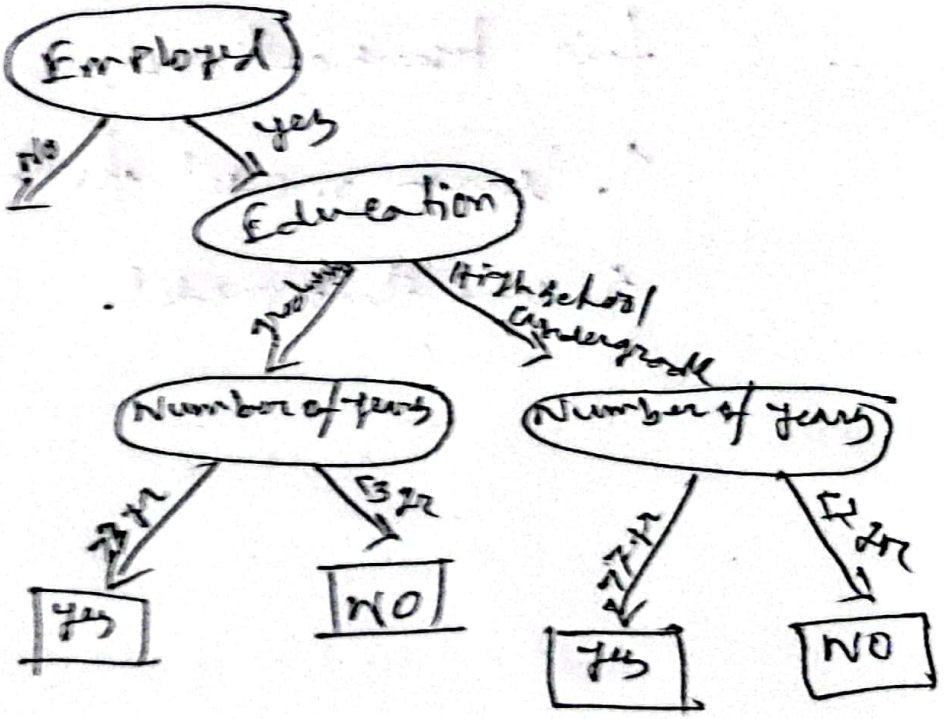
By leveraging data mining techniques, the analysts aims to discover hidden insights or pattern within the image data and automate process of counting distinct objects. This task falls under the category of unsupervised learning in data mining.

1.b. Yes this can be considered a data ~~mining~~ mining problem. To solve this problem, the doctor can employ data mining techniques, especially in the field of machine learning to build a predictive model. The labelled CT scan serve as the training data for the model. The doctor can extract relevant feature from CT scans such as the shape, texture, or intensity of certain regions, and use this feature as input to the model. This task falls into the supervised learning category.

1.c. Yes this can be considered a data mining problem To solve this problem, data mining problem particularly in the field of machine learning can be employed The historical records contain information such as the company stock prices, volume, market trends and various other financial indicators. The data points can be used to extract relevant feature for predicting future stock prices. This task falls in to the predictive modelling in data mining.

1.d) Yes monitoring the heart rate of patient for abnormalities can be considered a data mining task. specially, this task falls under the category of anomaly detection in data mining.

2. 1. model for the loan default. find a model for loan default model.



2.b:→ Fraud detection.

1. Goal: Predictive of fraudulent in credit card transaction.

2. use credit card transaction of information or it's accounts-holder as attributes.

3. Label past transaction as fraud or fair transactions.

4. Learn model for the class

5. use this model.