FAQ - Personal Loan Campaign

**1. How should one approach the Personal Loan Campaign project?**

* Before starting the project, please read the problem statement carefully and go through the criteria and descriptions mentioned in the rubric.
* Once you understand the task, download the dataset and import it into a Jupyter notebook to get started with the project.
* To work on the project, you should start with data preprocessing and EDA using descriptive statistics and visualizations.
* Once the EDA is completed and data is preprocessed, you can use the data to build a model and check its performance.
* It is important to close the analysis with key findings and recommendations to the business.

**2. Decision Tree arrows are missing, how to fix this?**

Use the following code as a reference to resolve the issue and make necessary changes (name of the model, feature names, etc):

plt.figure(figsize=(20,30))

out = tree.plot\_tree(model,feature\_names=feature\_names,filled=True,fontsize=9,node\_ids=False,class\_names=None,)

#below code will add arrows to the decision tree split if they are missing

for o in out:

arrow = o.arrow\_patch

if arrow is not None:

arrow.set\_edgecolor('black')

arrow.set\_linewidth(1)

plt.show()

**3. How to deal with "ZIPCode'' as it is a numeric value but it's also essentially a category?**

You can explore the following links to deal with zip codes:

1. [uszipcode](https://pypi.org/project/uszipcode/" \t "_blank) - Python package that can help in mapping zip codes to different locations

2. <https://www.smartystreets.com/articles/zip-4-code> - Description of how zip codes are created in the US.

**4. Should I create dummies for the columns that only have 0’s and 1’s?**

**No, it is not necessary to create dummies for these columns.  
  
5. I'm trying to post-prune the decision tree.  But I'm getting the following error:**

“**ValueError**: ccp\_alpha must be greater than or equal to 0"

**How to resolve this?**

To resolve this error kindly use absolute values (positive value) of alpha. Use the following lines of code to resolve the error:

ccp\_alphas, impurities = abs(path.ccp\_alphas), path.impurities

**6. I get the following error:**

ModuleNotFoundError: No module named 'nb\_black'

**how do I install nb\_black?**

Run the below code in the anaconda prompt

pip install nb-black

or run the below code in jupyter notebook.

!pip install nb-black