

# Post-mortem

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## Project Goal(s):

Deploy an ML model that determines approval of home loans consistent with past approvals

## Scope:

- Report any significant findings in the data
- Create and deploy a predictive model that determines home loan approval
- Out-of-scope: Determining reason for loan approval

## Successes

Successfully developed Loan Approval Prediction Model on AWS SageMaker Notebook and deployed to a SageMaker endpoint. Model was effective at predicting loan approval based on a range of factors such as gender, marital status, education, number of dependents, income, loan amount, credit history, and others. The model was deployed to a SageMaker endpoint for easy access.

## Challenges

- More diverse data desired for testing
- Learned it is harder to deploy a Bring Your Own Model on AWS SageMaker than a native SageMaker algorithm
- On testing it was found that a large income, but no credit history resulted in a high likelihood of the loan being denied

## Future Development

- Additional common-sense checks of model inputs like the issue mentioned above where no credit history resulted in a high likelihood loan being denied
- Testing of additional models
- Hyperparameter tuning
- Create AWS MLOps Pipeline to make model iterations faster