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Springboard DSCT - May 2022  
Unit 7.1.2 - Capstone Two - Project Proposal

## American Express Credit Default Prediction

### Problem

How can American Express use customer data to build a default prediction model for cardholders, improving risk management and average customer experience, by August 24, 2022?

### Context

Predicting the likelihood of default among existing and potential cardholders is an essential component of risk management for payment card companies. Efficiently estimating and managing risk allows a lender to make appropriate lending decisions. Better lending decisions facilitate increased profit margins and improved customer experiences. American Express is a large, multinational corporation offering payment card services. Headquartered in New York City, this publicly held company maintains an active interest in improving risk management.

### Criteria for success

The main deliverable for this problem is a default prediction model. This model and related documentation must be completed on or before August 24, 2022.

### Scope of solution space

The solution space of this problem is limited to the source code for a predictive model, the notebook used to generate it from relevant data, a report explaining the development process, and a presentation summarizing key findings.

### Constraints

The dataset provided by American Express is anonymized and contains added noise. The data offered is confined to a specific time window. The deadline for model creation and submission is August 24, 2022.

### Stakeholders

American Express is a publicly traded company. All stockholders may be considered stakeholders. Improved risk modelling will allow American Express to more effectively screen card applicants and set appropriate credit limits for current and future cardholders. This is likely to improve average customer experience. Current and potential future cardholders may also be considered stakeholders.

### Data sources

A collection of anonymized customer data is available for the development of this model. Historical lending data, consumer trends, and other public financial data may also be relevant to potential solutions.