# 2. Project

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#### **Final Deliverables:**

- 1. Slide deck PDF pushed to GitHub designed for non-technical stakeholders that outline findings, recommendations, and future work (10 min presentation).
- 2. Jupyter notebook following PEP8 designed for data science/technical audience.
- 3. Python script for generating (takes .csv as argument and saves the model locally) and running your model from the terminal (takes test.csv and model as arguments and outputs accuracy and predictions as .csv) (you can still use the template repo : <a href="https://github.com/spiced-academy/ds-ml-project-template">https://github.com/spiced-academy/ds-ml-project-template</a>)
- 4. 1 slide about a potential Data product how the predictions can be used?

### Things to think about:

- Check for data imbalance!
- What would be the right performance metric precision, recall, accuracy, F1 score, or something else? (Check TPR?)
- Try different (at least 3) machine learning algorithms to check which performs best on the problem at hand (including cross validation and hyperparameter tuning)

#### **Submission Date:**

• 28th November 2023

#### 1. Kickstarter Project Success (Medium)

In recent years, the range of funding options for projects created by individuals and small companies has expanded considerably. In addition to savings, bank loans, friends & family funding and other traditional options, crowdfunding has become a popular and readily available alternative.

Kickstarter, founded in 2009, is one particularly well-known and popular crowdfunding platform. It has an all-or-nothing funding model, whereby a project is only funded if it meets its goal amount; otherwise no money is given by backers to a project.

A huge variety of factors contribute to the success or failure of a project—in general, and also on Kickstarter. Some of these are able to be quantified or categorized, which allows for the construction of a model to attempt to predict whether a project will succeed or not. The aim of this project is to construct such a model and also to analyze Kickstarter project data more generally, in order to help potential project creators assess whether or not Kickstarter is a good funding option for them, and what their chances of success are.

### 2. Zindi challenge (Easy - Advanced)

Please choose one of the following challenges on Zindi. You need to follow the requirements form the challenge and also make a stakeholder presentation

- A. <a href="https://zindi.africa/competitions/tanzania-tourism-prediction/data">https://zindi.africa/competitions/tanzania-tourism-prediction/data</a> (Easy 2 people)
- B. <a href="https://zindi.africa/competitions/fraud-detection-in-electricity-and-gas-consumpti">https://zindi.africa/competitions/fraud-detection-in-electricity-and-gas-consumpti</a>
  <a href="mailto:on-challenge">on-challenge</a>
  (Medium, with starter notebook 3 people)
- C. <a href="https://zindi.africa/competitions/zindiweekendz-learning-urban-air-pollution-challenge">https://zindi.africa/competitions/zindiweekendz-learning-urban-air-pollution-challenge</a> (Medium/Advanced 3 people and domain knowledge)
- D. <a href="https://zindi.africa/competitions/flight-delay-prediction-challenge">https://zindi.africa/competitions/flight-delay-prediction-challenge</a> Flight delay (and airport data <a href="https://pypi.org/project/airportsdata/">https://pypi.org/project/airportsdata/</a>) (Medium 3 people)
- E. <a href="https://zindi.africa/competitions/financial-inclusion-in-africa">https://zindi.africa/competitions/financial-inclusion-in-africa</a> (Easy 2 people)
- F. <a href="https://zindi.africa/competitions/turtle-rescue-forecast-challenge">https://zindi.africa/competitions/turtle-rescue-forecast-challenge</a> (medium, has starter notebook 3 people)
- G. <a href="https://www.kaggle.com/datasets/ulrikthygepedersen/kickstarter-projects/data">https://www.kaggle.com/datasets/ulrikthygepedersen/kickstarter-projects/data</a> (advanced 3 people)

## Assignment of topics:

Kickstar ter	Zindi A	Zindi B	Zindi C	Zindi D	Zindi E

## **Groups:**

Group 1		
Group 2		
Group 3		
Group 4		
Group 5		
Group 6		