Project Proposal

-Problem statement:

Overcrowding in the holy places in Mecca causes several problems and incidents, the most prominent of which is the run-over incident in Mina in 2015, which killed 769 people and injured 694 people. Another stampede occurred in 1990, which claimed the lives of 1,426 people. SDAIA and The General Presidency for the Affairs of the Grand Masjid and the Prophet's Masjid harnessing digital products in the service of the guests of the holy places, so we decided to implement a system capable of managing crowds by identifying number of people in crowded places in the holy places to avoid overcrowding accidents.

-Data Description:

The dataset is not available, so we will use a dataset from Analytics Vidhya containing 1200 images.

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-Tools:

- Programs: Jupyter Notebook
- Libraries: numpy, pandas, matplotlib, seaborn, csv, GridSerchCV, SciPy, Theano, TensorFlow, Keras, torch , glob , h5py.
- Functions: shape, value_counts, info, drop, astype, groupby, mean , CSRNet , tqdm , gaussian_filter .
- Plots: pointplot, barplot, histogram, scatter, distplot, Pie Chart

-MVP Goal:

The safety of the pilgrims is one of the most important things in the Kingdom of Saudi Arabia and in the Islamic world in general, so we will create a system capable of managing crowds by determining number of people in the holy places in order to avoid overcrowding accidents.