

This dataset describes the medical records for Pima Indians and whether or not each patient will have an onset of diabetes within five years.

Fields description follow:

- 0- preg = Number of times pregnant
- 1- plas = Plasma glucose concentration in an oral glucose tolerance test
- 2- pres = Diastolic blood pressure (mm Hg)
- 3- skin = Triceps skin fold thickness (mm)
- 4- test = 2-Hour serum insulin ( $\mu$ U/ml)
- 5- mass = Body mass index (weight in kg/ (height in m) <sup>2</sup>)
- 6- pedi = Diabetes pedigree function
- 7- age = Age (years)
- 8- class = Class variable (1: tested positive for diabetes, 0: tested negative for diabetes)

### Task:

- 1- Implement a **neural networks** model, that gets the columns 0-7 as input and returns the column 8 as output.
- 2- Code for training the model.
- 3- Code for testing the model.
- 4- Train and test the model using the given dataset.
- 5- Plot the results for every training/testing epoch (validation and test) using accuracy and loss as metrics.

### Things to consider:

- 1- The implementation must be on **Keras**.
- 2- The most important thing is the code quality, not the results. Still, the model has to learn.