%Part 2 technical basics

2.1 Regression basics:

Regression/Linear Regression: In the context of this work, linear regression is a technique that aims to find a line that best fits a given set of data points. It does so by minimizing the distance between the line and the data points. The formula of the line is y = mx+b, which is a straight line

Polynomial Regression: Refers to the line that has N number of polynoms in its formula (y = mx^n + mx^(n-1) + … + mx + b, where m is a slope and b is an intercept. Both, m and b parameters are approximated by regression. N is heuristical). Polynoms enable the line to be non-linear and have some curvature

%Part 3.1

3.1 Description of the current status:

The application is currently in an operational state, allowing users to input their exam plans for evaluation. The system utilizes algorithms and rule-based systems to process the exam plans based on the predefined criteria. It assigns weights to each criterion to reflect their importance in the overall assessment.

The rules are following:

* Big exams have to be early
* Students mustn’t have two exams in the same day
* Students should have one day gap between exams
* Rooms have to be not too big or too small for the exam
* If two rooms are assigned for the exam, they have to be as close as possible
* Professor is not available on some date
* Professor wants to come on minimal amount of days

The current version of the application provides a score indicating the overall quality of the exam plan. Additionally, it generates an HTML report file that includes visualizations, conflict dataframes, and scores for each individual criteria. This report serves as a valuable tool to help professors spot potential problems and gain insights into the strengths and weaknesses of the exam plan.