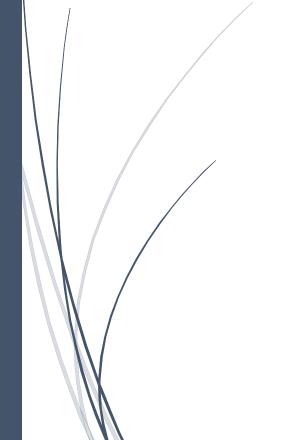# Project Synopsis
Mathematics Question Generator

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Mathematics Question Generator

Aim: To build an API that is able to generate mathematical questions on demand, and an application that will use it.

Description: These days maths is a complex subject for students, and the only way to improve on it is to practice it. Furthermore, it is difficult acquire books and question papers with appropriate questions to practice mathematics. Books can be expensive or uneconomical for many individuals; books also suffer with the problem of repeated questions. To counter the is problem the API will be used application to generate new and unique question sets to help users practice mathematical questions and improve their mathematical skills.

Proposed Functionality: The application will use the API and display the appropriate result. The API will take the following inputs: (1) Types of question (2) Number of Questions. The API will give the following output: json output with the body containing the requested questions.
The API will be able to generate the following types of questions:
- Basic operation questions (Addition, Subtraction, Multiplication, Division)
- Factors of the number
- LCM and HCF
- Linear equations with 2 variables
- Quadratic equations
- Percentage questions

Technologies:
- Python 3
- Flask
- Angular Framework
- HTML, CSS
- Javascript