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22B0348

B tech in Chemical eng., (2nd Year)

**Progress Report:**

**Week 1** (until 14 May) :

            Tasks                              Status

1. Basics of Python                 Completed

Num. methods(+implementation)

1. Newton Raphson method     Completed
2. Euler’s Method                   Completed
3. Jacobi method                     Completed
4. Gauss Seidel method          Completed
5. Example notebook              Completed

Implementations of numerical programs

<https://colab.research.google.com/drive/1lRV9xepNBDvRlhhfLvsxWCBSogD8-lVS?usp=sharing>

Mini Project-1

<https://colab.research.google.com/drive/1tPvfwXPgK4ccNHbASaRtrHCsWhZPWWIS>

Mini Project-2

<https://colab.research.google.com/drive/1yVtJk3GYd3PjtnxXhts6TAHJKXBacwhO?usp=sharing>

Mini Project-3

<https://colab.research.google.com/drive/1-SnJuwjzddfOobCoyV1ciZ1i_BYmt_ho?usp=sharing>

Final Project

Topic: Simulation of fluids in different systems

Description: In this project,I will try to simulate fluids in different systems like pipe,cavity etc. by solving the Navier Stokes equation.

Actionable steps:

1. Solving the equation by FDM
2. Simulating fluid flow in a pipe
3. Simulating fluid flow in more complex systems

<https://colab.research.google.com/drive/1mOpUzIZoWIKKpudw5NqUkPcWHn3OEK6V?usp=sharing#scrollTo=oTQdBKQMfmnx>