

# IMPLEMENTATION OF RESEARCH IN ABSTRACT ALGEBRA

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## 1 Week 1

- Started studying group theory from I. N. Herstein's book on Abstract Algebra.
- Learnt the basics of group theory upto automorphisms.
- Looked up for potential topics to implement abstract algebra algorithms.

## 2 Week 2

- Met with professor A.K. Lal for help regarding Coding theory.
- Decided to implement an algebraic decoding algorithm (most probably BCH codes) as given in the book **Coding Theory: Algorithms, Architecture and Applications**.
- Started learning coding theory from the book and completed upto linear block codes
- Continued with group theory and started with basic ring theory.