

## CS 4063 Project Proposal

### Team 19

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### Proposal

Team 19 will be assessing the best way to incorporate classical user approaches to sudoku into a simple to use android application. Two to three competing UI designs for the application will be prototyped with emphasis on ease of use. After testing design ideas and choosing a general direction, specific elements of sudoku gameplay will be added. Popular strategies for solving sudoku puzzles on paper must be researched in order to develop the tools necessary for users to apply these strategies to puzzles within the app. Front end and UI development will be prototyped using a whiteboard or pencil and paper during team meetings, refined, and then implemented in Android Studio. The back end game functionality will be programmed in Java. Back end work will begin with the basics of solving externally generated puzzles and if time allows progress toward the possibility of creating an in-house puzzle solver and generator. Both the front and back end will be designed with function scalability and difficulty adjustment in mind. All group work will be kept and controlled through a private Github repository.

The project work has been divided into the four categories of documentation, UI design and testing, back end development, and research and incorporation. As the focus of this project is on user interaction, emphasis will be placed on UI development and testing with user feedback. Mr. Barnes will lead the documentation and general project management logistics. Mr. Burris and Mr. Devore will head up the UI design and measuring user feedback. Mr. LeMaster will spearhead the back end game development and functionality. Mr. Scott will take charge of researching sudoku strategies and incorporating them into the UI. All of these roles are intended to overlap and their respective tasks will be done in collaboration with all other team members.