

ABSTRACT

On daily life, the needs for personal vehicle is almost a necessity. As they're used, there will be times when those vehicles is not on the best condition, forcing the owner to take them to an auto shop. But an auto shop with a decent or a better services that they provide will often have lines of customer waiting to fix their vehicles this can make customer think twice to visit the auto shop

Based on that problem the writer design a mobile application to help mechanic for assessing motorcycle damages with doing consultation. Writer use inference forward chaining method by implementing A-star algorithm for finding the problems according to user's answer("yes" or "no") that will decide question path (total of question according to user's answer) so it will result the conclusion of damages. This application can help customer for seeing how long the queue lines of service at the bike shop, making service reservation and spare part ordering. This application was designed with using J2ME programming language and MySQL 5.5 for database.

This application have an accuracy for assessing damages in about 75% and 42% accuracy for matched advice and final conclusion for the damages. From customer point of view, this application have quite simple and easy to use interface with proper help or guide provided.

Keywords: Experts system, forward chaining, A-star algorithm