## AUTOTEC: AN AUTOMOBILE WORKSHOP MANAGEMENT SYSTEM TO TRACK WORK IN PROGRESS AND SPEED UP VEHICLE DELIVERY TIMES

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## **Abstract**

Increasing the service quality is a vital factor for any business organization, especially in the automobile industry, where customer satisfaction can make or break a workshop's reputation. Traditional manual processes used by workshops can result in errors, delays, and miscommunications, leading to customer dissatisfaction. It is identified that incorrect estimations including but not limited to time, cost, workshop quota and the inability to track and monitor the progress of ongoing work can lead to frustrated customers who may choose to take their business elsewhere.

The project aims to address the problem statement by designing, developing, testing and evaluating an application that would improve customer loyalty and satisfaction by facilitating automobile workshops to provide a better service. Literature reviews were done to validate the domain and gain deeper understanding on the existing theories and models that can be utilized to increase the service quality of automobile workshops. To propose an effective solution, requirements were gathered from domain experts, employees and customers using interviews and questionnaires.

Since the requirement gathering was done in Sri Lanka, it was identified that attempts to increase service quality in this sector was limited. Hence, the **AutoTec** mobile application was developed as a solution which provided features such as providing customers with a login to access their vehicle's status, inspection report, pre-repair estimates, and approval/refusal options for estimates which will increase transparency and communication between the customer and the workshop. Experts and non-experts in the domain and IT industry evaluated the solution and commended on the overall approach to address the problem domain and increase the service quality in this sector.