

6COSC023W – Final Project Report

Airplate - A Platform To Reduce International Catering Waste in Airlines Through Data, Insight and Action

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This report is submitted in partial fulfilment of the requirements for the
BSc (Hons) Business Information Systems
at the University of Westminster

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03.05.2022

Abstract

The catering and in-flight services domain of the aviation industry generates a large amount of food waste particularly originating from deplaned waste and terminal waste. As a result of the increasing amounts of food wastage and the poor methods of disposal, key stakeholders of the industry incur large costs, deplete limited natural resources, affect the sustainability credibility of the airline industry and cause a significant environmental impact in contributing to the generation of greenhouse gases.

Despite the rigorous regulations governing the industry and other causal factors that contribute to this problem, key stakeholders such as airlines, catering companies and authoritative bodies are making significant efforts to reduce waste generation and introduce innovative methods of waste management. However, a holistic approach that supports all key stakeholders of the industry is not currently available.

This research intends to design, develop, test and evaluate a holistic system for passengers and cabin crew to identify key areas of food wastage, minimise the impact to the business and environment and enhance customer experience by providing a personalised experience for the passengers. Airplate was developed to bridge the existent market gap by incorporating the information gathered during this research period.

An agile-waterfall method was used as the key project methodology to develop Airplate and thorough research was conducted by using suitable requirement elicitation methods. The collected information was then used to build an initial prototype and feedback was obtained from relevant stakeholders of the application and the industry and refinements were made accordingly.

All feedback obtained from the stakeholders were approving and enthusiastic of both the problem idea and the solution and any additional comments will be used to improve the solution in the future.

Keywords: Food Wastage, Cabin Waste, Deplaned Waste, Terminal Waste.