**A Web Based Solution for Coping with Additional Yoyo Wallet Data in a Dashboard for DUSA**

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**B.Sc. Hons Applied Computing/HCI/Computing Science**

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***Abstract –*** *The purpose of this project is to provide a solution to the Dundee University’s Student Union (DUSA). The solution is a web-based dashboard that will cope with additional data over and above the current system it should identify types and tribes of YOYO Wallet users thereby helping staff make decisions to meet their target.*

*Methods:*

*Findings:*

*Conclusion:*

*(no more than 200 words)*

**1 Introduction**

In recent years, there has been a growth in retailers offering smart shopping to customers through mobile payment and loyalty rewards. The Dundee University Student’s Union introduced this way of paying in September 2015 using the Yoyo Wallet app. With sales from the app increasing over the two years in use, DUSA are looking to meet their target of yoyo app sales being 40% of all total sales by the end of the 2017/18 academic year.

In order to help meet this target, a team of Applied Computing/HCI and Computing Science students was brought on to create a web-based dashboard solution. The dashboard solution has the purpose of handling additional data than the current system and help DUSA’s administrators, managers and other staff, make decisions to support their customer’s purchases in the future.

To do this, the team of students identified the various types and tribes from the Yoyo Wallet data and visualised them in different graphs so DUSA staff can view. Types and tribes looked at included whether black cardholders use Yoyo Wallet for purchases inside DUSA or solely as redemption for entry and cash for payments on the night. Another tribe or type investigated was when users join and if they stop using the app throughout the academic year and if they restart using the app regularly.

**2 Background**

Background – review of relevant literature and any similar products. The project should be placed in a wider context and this could include the scientific, technical, commercial, social and ethical context.

**3 Specification**

Specification of the problem and an explanation of how you arrived at this specification. An initial work schedule including an overall project plan with time-scales, deliverables and resources should be included in the report.

**4 Design**

Include descriptions of the (user-centred) design methods employed to produce a usable product, including rapid prototyping, usability methods, results and re-designs as appropriate. Design decisions and trade-offs should be described, e.g. when selecting algorithms, data structures and implementation environments or when designing for usability.

**5 Implementation and Testing**

You should describe important aspects of production, testing and debugging. Include a demonstration (or even a proof) that the specification has been satisfied.

**6 Evaluation**

**6.1 Usability**

Usability should be evaluated with a description of the user-centred design methods employed to produce a usable product, including rapid prototyping, usability methods, results and re-designs as appropriate.

**6.2 Other criteria**

Other relevant criteria such as accuracy and computational efficiency should also be employed for evaluation as appropriate. Where a user evaluation is conducted the process of evaluation should be described (including ethical considerations) along with a presentation of the results obtained and discussion of the results, their implications and any conclusions drawn.

**7 Description of the final product**

A clear description of what the final product looks like and what it does. This is vital but often neglected.

**8 Appraisal**

A critical appraisal of the project indicating the rationale for design/implementation decisions, lessons learnt during the course of the project and an evaluation (with hindsight) of the final product and the process of its production (including a review of the plan and any deviations from it).

**9 A description of any research hypothesis (optional)**

**10 Summary and Conclusions**

**11 Recommendations for future work**