Researchers:
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YumMe

Air Itam Laksa
★★★★★ / 13 reviews
🍴 Food ★★★★½ / 13
♨ Service ★★★★★ / 1
$ Pricing ★★★★½ / 8
🪑 Ambience ★★☆☆☆ / 1
🌐 General ★★★★½ / 9
Food Court
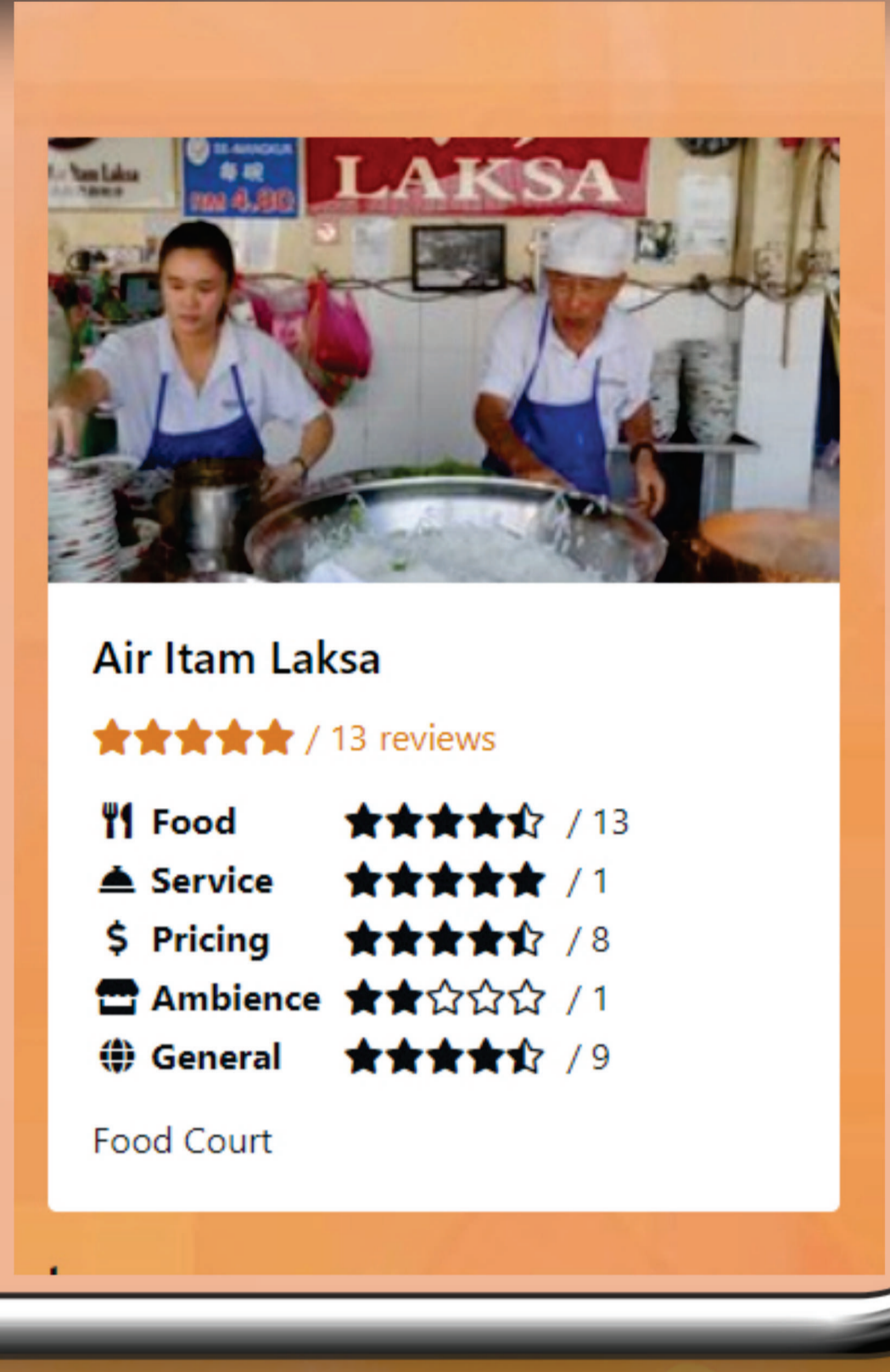
YUMME: INTELLIGENT RESTAURANT META-REVIEWER USING SENTIMENT ANALYSIS AND VISUALIZATION
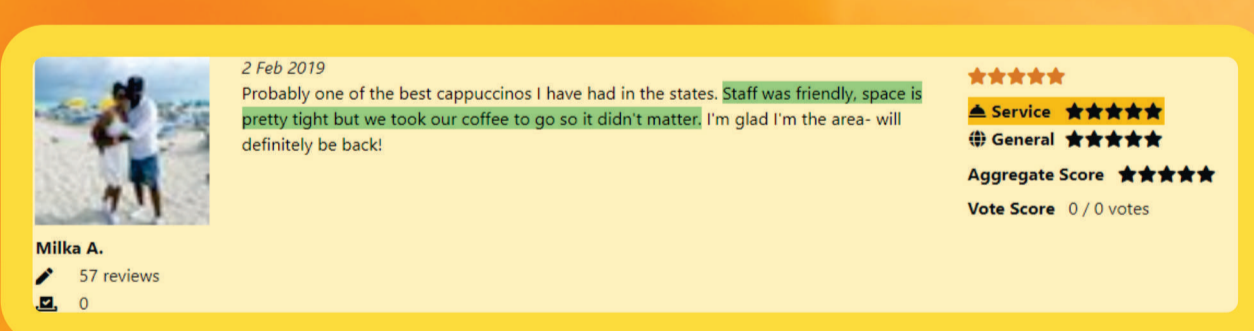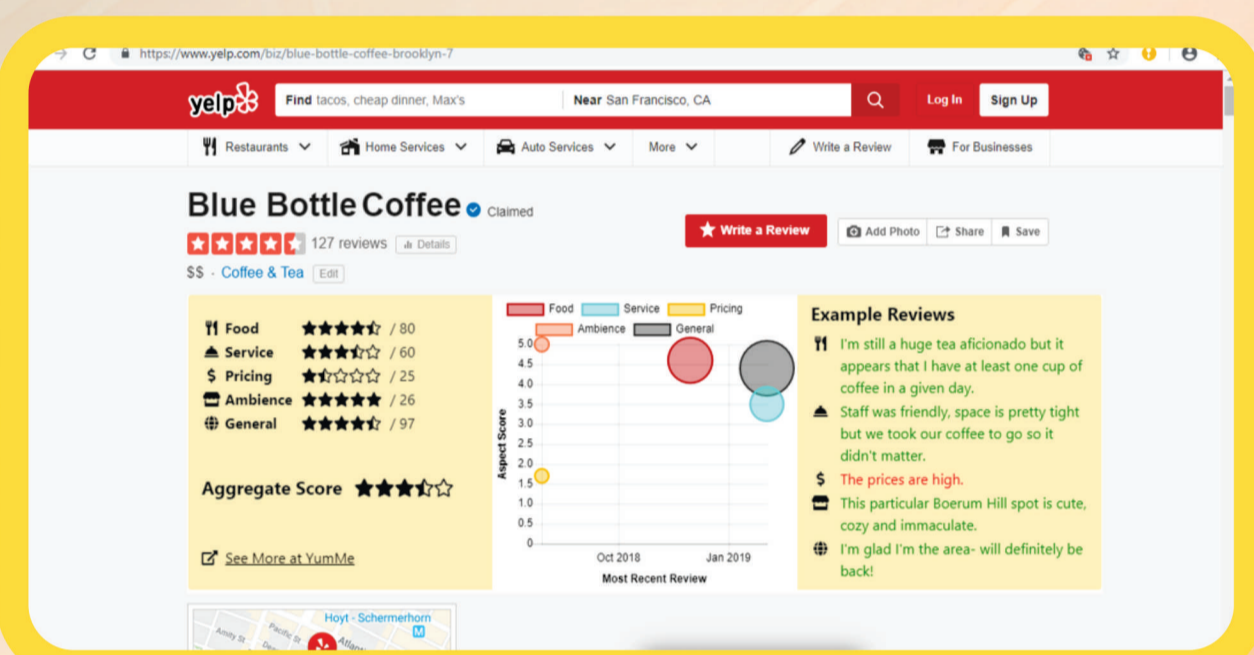
Introduction
- YumMe is a restaurant meta review system (includes a web browser extension and web application) capable of performing aspect-based sentiment analysis and visualization on large amounts of textual reviews to help tourists make more informed and quick decision on what and where to eat.

Problem Statement
- Choosing what and where to eat are some of the most common dilemmas encountered by tourists especially when visiting a new place. Restaurant review websites help people make such a decision, but most of them offer only a generic overall rating for each restaurant and thousands of user-generated reviews, making it difficult and time-consuming for tourists to glean quick insights of the food quality, pricing, etc., and for restaurant owners to know what their customers look for.

Novelty & Inventiveness
- Leverages natural language processing and machine learning to quickly analyse and visualise sentiment towards food, service, pricing, ambience and general aspects of a restaurant from thousands of textual reviews.
- First restaurant "meta" review application powered by artificial intelligence (AI).

Applicability
- Aids tourists to find suitable restaurants based on aspects of interest instead of depending only on the star rating of a restaurant.
- A more economical method for business owners to analyse customer feedback to increase profit and reduce wastage.

Product/Technology Readiness
- Technology Readiness Level: 6 (Fully working and system-tested prototype)

Research Achievement
- Funded by Research University Grant (RUI) "Detection of User Opinion and Emotion in Online Product Reviews" (RM 88,800)
- Publications: 5 (4 Journals + 1 Conference)
- Talent Development: Graduated 1 PhD, 1 Masters & 1 Undergraduate
- Gold Medal in Novel Research and Innovation Competition (NRIC) 2019

Intellectual Property
- Copyright (LY2019004760) YumMe: Aspect-based Sentiment Analysis and Visualization for Restaurant Reviews

Commercial Potential
- Huge potential market of existing restaurant review website users, e.g. Yelp, the largest restaurant review website globally, has approximately 1.5 million visitors daily
- Multiple business models possible:
  - Standalone restaurant review website
  - Aspect-based sentiment analysis API service
  - Strategic partnership with existing restaurant review website, e.g. Yelp

Level of Impact
- Contributes to a more sustainable food and tourism industry through better decision making by tourists and restaurant owners

Presentation and Other Strength
- Best Presenter Award in NRIC 2019

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