

STARS App

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1. HOUSING STARS

The Housing STARS App provides mobile access to Housing STARS.

Housing STARS (Student Tenancy Accommodation Rating Scheme) is a website tool for rating and recognising good quality student properties (<http://www.dunedin.govt.nz/student-housing>). The STARS ratings are based on information provided by landlords on:

- Fire safety
- Security
- Insulation
- Heating and ventilation
- General amenities

Housing STARS is a collaborative effort between the Dunedin City Council, the University of Otago and the Otago Polytechnic. These partners have an interest in improving the standard of student housing in Dunedin seeking tangible benefits for students, landlords and the city. STARS is a project undertaken by the Tertiary Precinct Planning Group with input project stakeholders including student associations, property investors and the Real Estate Institute of NZ.

STARS is a good faith scheme with the rating for each property automatically generated by the landlord's responses to an online questionnaire about the property. Each question is weighted differently, giving an overall impression of the quality of the property and a rating out of five stars.

2. HOUSING STARS APP

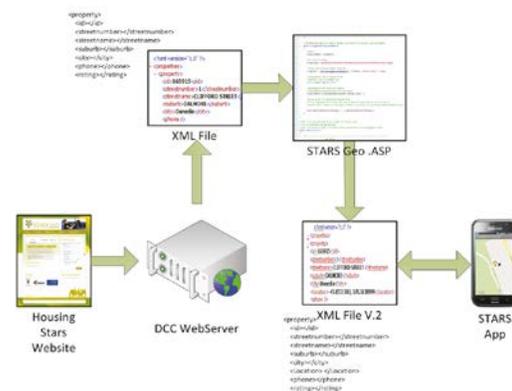
A recognised difficulty with the existing website is its lack of mobility. Rectifying this problem became the Housing STARS App project. We have an on-going collaboration between the Dunedin City Council and the Otago Polytechnic to improve information flows between the Council and the people of Dunedin. This has included Fix-it – a mobile application for reporting city faults (potholes, graffiti etc.), a car park finder and a tourism application.

The STARS website uses a drill down approach – you enter the address of the property and it returns a detailed report on all the parameters, sorted by categories. The questions are list in full – for example “What is the primary heating source provided in the main common area?”, “Is there a robust key management system that ensures that keys cannot be copied; and if lost or not returned, the relevant locks are replaced?”. Most questions have a yes/no answer, but some have more complex answers: “What kind of ceiling insulation does the property have?” gives, for example, “Fully covered with an insulation depth no less than: 150mm or fully covered by means of another storey above”. Similarly

window glazing, bathrooms and age of appliances have textual or numerical answers. Such verbose questions and answers are not suited to mobile deployment. Our first approach was to show one image on the phone display for each section with hotspots to display details of the individual question responses. This was soon discarded as being too cumbersome and not intuitive. After much iteration and testing a series of icons were developed to represent the question and answer pairs. This was quite challenging - how do you display in an icon format ‘heating clear of combustibles’?

Moving to a mobile platform also gave an opportunity to move to a map-based display. In high density areas of infill housing the street address is often not particularly useful in finding a flat. The Housing STARS App, takes a feed from database that drives the website and displays it on a Google Map. When the property is selected, the information is then displayed in a graphical format based on the textual information held on the website. The website, however, is not geocoded, so we had to write an intermediary application to add coordinates.

The system was deployed by the DCC on the Android App Store in November 2011.



This poster paper appeared at the 3rd annual conference of Computing and Information Technology Research and Education New Zealand (CITRENZ2012) incorporating the 25th Annual Conference of the National Advisory Committee on Computing Qualifications, Christchurch, New Zealand, October 8-10, 2012. Mike Lopez and Michael Verhaart, (Eds).