

UAM / IMS Integration

Use Case Model

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1. Summary

1.1 Background

The University Accommodation Management system, UAM, is a specialised student housing solution. Applicants for student accommodation register by completing an online application via a link from the University website.

The Identity Management System (IMS) was introduced to the University in 2008 and is the University's system of record for identity information and primary web authentication. There is currently no automated integration between UAM and the IMS.

In order to bring some efficiency and provide a better user experience for students it is desirable to integrate the UAM system with the IMS – ensuring that a student only needs to register and update personal data in one system. Additionally, it would be beneficial to pass various affiliation information from other University systems to UAM to keep them informed of any student's status changes.

1.2 Glossary of terms

Term	Meaning
UAM	University Accommodation Management (UAM) system is the University's specialised student housing solution.
SAP	The Student Administration Platform.
IMS	The Identity Management System (IMS) is the University's master repository for Personal Data. It stores and maintains details of all persons that the University has a relationship with, including students, staff, visitors, alumni and contractors.
AfUE	Application for University Entrance. This is an application for recording applications for admission to programmes of study at the University. It interfaces with the IMS for the Personal and Contact details of the applicants.
ULN	University Login Name – assigned to persons in the IMS when an Identity becomes resolved.

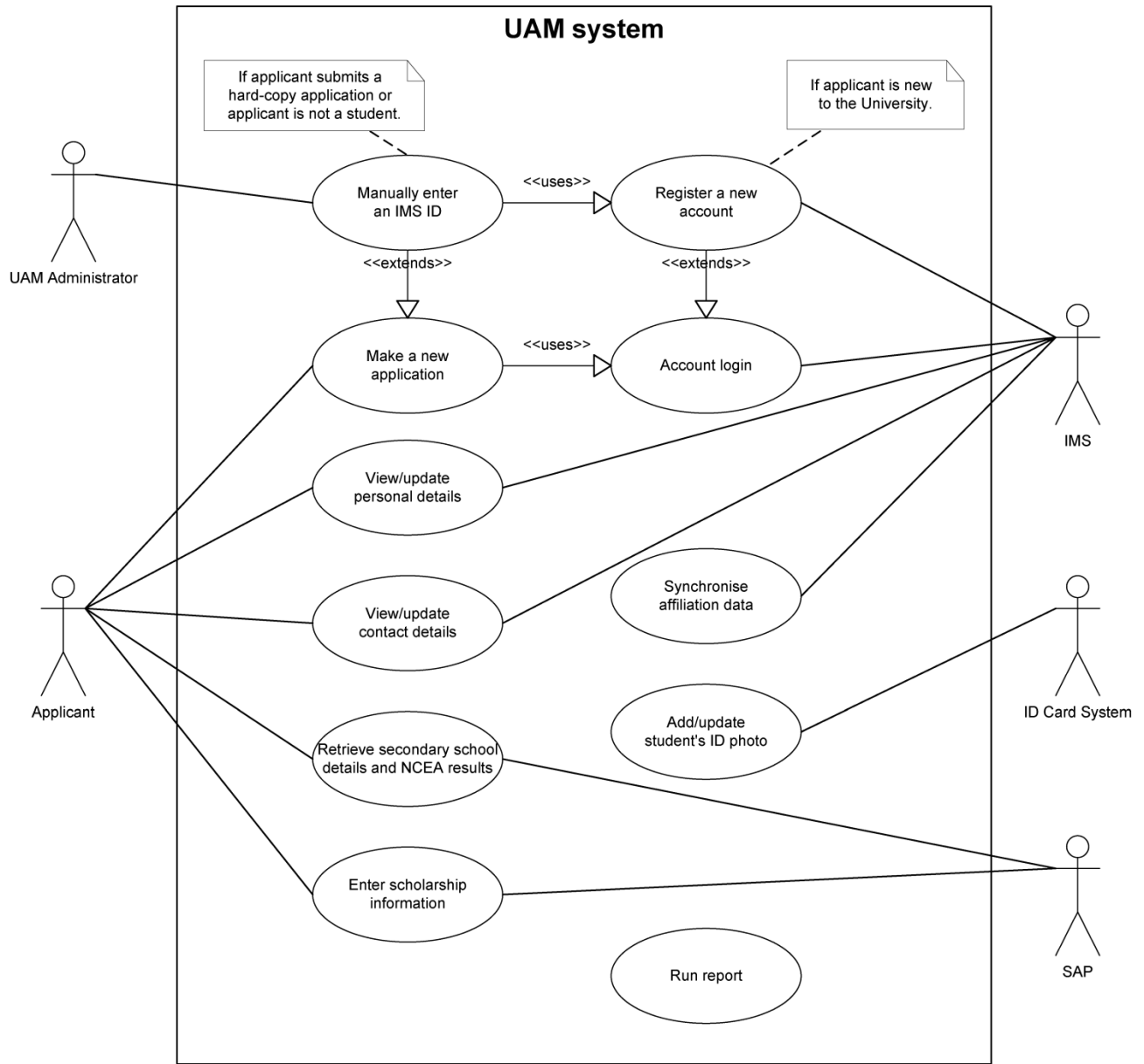
2. Solution Overview

When a prospective or current student wants to submit an online Application for Accommodation at the University they will use the links currently provided on various web pages, e.g. the University Home page 'Accommodation' link, or via the Application for University Entrance (Accommodation Services link).

The solution for accommodation follows the pattern already established for similar web forms like the Application for University Entrance. Applicants visiting the Application for Accommodation for the first time will be required to register themselves in the IMS and provide all the necessary personal data. The applicant will then be transferred back to the accommodation form where their personal data will be displayed 'read only'. A link back to the IMS will be provided in order that applicants can update personal data at any time.

Additionally, it would be useful for Accommodation staff to have basic student-related information provide to UAM from other systems, to assist them in processing an applicant's request for accommodation.

3. Use Case Diagram



4. Actors

4.1 Applicant

Actor	Applicant
Description	The person who wants to submit an application for Accommodation at the University.
Example	Prospective or current student

4.2 UAM administrator

Actor	UAM administrator
Description	The person who processes an applicant's request for accommodation.
Example	Accommodation staff

4.3 IMS

Actor	IMS
Description	The Identity Management System (IMS) is the University's master repository for Personal Data. It stores and maintains details of all persons that the University has a relationship with, including students, staff, visitors, alumni and contractors.

4.4 ID card system

Actor	ID card system
Description	The University's ID card system.

4.5 SAP

Actor	SAP
Description	The Student Administration Platform.

5. Use Cases

5.1 Make a new application

Actors	Applicant or UAM administrator
Trigger	The applicant wants to submit an application for Accommodation at the University.
Prerequisites	None.
Post-conditions	The applicant or the UAM administrator will have completed an Accommodation Application successfully.
Normal flow of events	<ol style="list-style-type: none"> 1. The 'Account Login' section on the University Accommodation Home page directs the user to the IMS for Sign in (see use case "Account login"). 2. Once the applicant has either logged in or registered (in the IMS) and completed their verification, the applicant can begin a new Application, by selecting the 'My Application' link from the home page. 3. The applicant selects their application type and clicks on 'Save and Continue' – they will be transferred to the 'Personal Details' page (see use case "View/update personal details"). 4. The applicant is then transferred to the 'Contact Details' page in the Accommodation Application (see use case "View/update contact details") after viewing or updating their personal details. 5. The applicant completes the remaining parts of the Accommodation application.
Variations	If the applicant submits a hard-copy application or the applicant is not a student, a UAM administrator will enter the application for them (see use case "Manually enter IMS ID").
Use Case associations	<p>The related use cases are:</p> <ul style="list-style-type: none"> • Account login • View/update personal details • View/update contact details • Manually enter an IMS ID

5.2 Account login

Actors	Applicant, IMS
Trigger	The 'Account Login' section on the University Accommodation Home page directs the user to the IMS for Sign in.
Prerequisites	None.
Post-conditions	The applicant will have been successfully logged in.
Normal flow of events	<ol style="list-style-type: none">1. The 'Account Login' section on the University Accommodation Home page directs the user to the IMS for Sign in.2. For someone who has previously registered with the university, they can use their University ID (7 character number), ULN (if they are already a student) or the personal email address they used to create their account.3. The applicant is being redirected to the 'Welcome' page in the Accommodation Application once signed in.
Variations	If the applicant is new to the University then the applicant will be taken to the IMS registration screen (see use case "Register a new account").
Use Case associations	This use case is extended by the "Register a new account" use case.

5.3 Register a new account

Actors	Applicant or UAM administrator, IMS
Trigger	<ol style="list-style-type: none"> 1. The applicant is being taken to the IMS registration screen before completing an Accommodation Application, or 2. The UAM administrator creates an IMS identity on behalf of an applicant.
Prerequisites	The applicant is new to the University.
Post-conditions	The applicant or the UAM administrator will have successfully completed the registration. The applicant can return to the Accommodation portal – Home page and lodge an application.
Normal flow of events	<ol style="list-style-type: none"> 1. The applicant is taken to the IMS registration screen. 2. The applicant is required to enter the following; <ul style="list-style-type: none"> • Email Address • First Name • Last Name • Password 3. Following completion of this form and acceptance of the terms and conditions the applicant will be sent a confirmation email. 4. The applicant is required to complete the verification by clicking on the 'Complete Your Registration' link and populating the following information (some of which is compulsory). <ul style="list-style-type: none"> • Title • Middle Names • Preferred Name • Previous Name • Mobile Phone Number (required) • Home Phone Number (required) • Correspondence Address (required) • Gender (required) • Date of Birth (required) • Citizenship (required) • Residency (if not an NZ citizen) • Ethnicity (required) • Emergency Contact details (required) • National Student Number (NSN) 5. Once this page is complete, the applicant can return to the

	Accommodation portal – Home page and lodge an application.
Variations	None.
Use Case associations	None.

5.4 Manually enter an IMS ID

Actors	UAM administrator
Trigger	<ol style="list-style-type: none">1. The UAM administrator enters an application on behalf of an applicant, or2. The UAM administrator processes applications for non-student accommodation residents, who are currently entered into UAM through the Administration pages, or3. The UAM administrator processes applications for those students that submit a hard-copy application.
Prerequisites	None.
Post-conditions	The UAM administrator will have successfully gathered the personal data from the IMS.
Normal flow of events	<ol style="list-style-type: none">1. The UAM administrator enters an application on behalf of an applicant.2. The UAM administrator creates the identity in the IMS first (see use case "Register a new account").3. The UAM administrator enters the IMS ID number into UAM manually.4. The UAM administrator pushes the person message from the IMS in order to populate the required personal data fields.
Variations	None.
Use Case associations	This use case includes the use case "Register a new account".

5.5 View/update personal details

Actors	Applicant, IMS
Trigger	The applicant is being transferred to the 'Personal Details' page in the Accommodation Application.
Prerequisites	The applicant has logged in.
Post-conditions	The information on the 'Personal Details' page in the Accommodation Application will be updated with whatever was saved in the IMS. This will be a near real-time update.
Normal flow of events	<ol style="list-style-type: none">1. The applicant is being transferred to the 'Personal Details' page. All fields are display only on this page.2. The applicant can maintain their own data by clicking the link 'Update Personal Details' on the page. This link will transfer the user to the IMS (in a new browser window).3. The applicant returns to the 'Personal Details' page after updating their information in the IMS.
Variations	None.
Use Case associations	None.

5.6 View/update contact details

Actors	Applicant, IMS
Trigger	The applicant is being transferred to the 'Contact Details' page in the Accommodation Application.
Prerequisites	The applicant has logged in.
Post-conditions	The information on the 'Contact Details' page will be updated with what was saved in the IMS.
Normal flow of events	<ol style="list-style-type: none">1. The applicant is being transferred to the 'Contact Details' page in the Accommodation Application - all fields are read only with three separate buttons to link to different parts of the IMS for adding and/or update Addresses, Phone & Email and Emergency Contacts details.2. A new browser window will be opened in the IMS on the appropriate page – and when saved will push a near-real time message to the Accommodation system to update anything that has changed.3. The applicant returns to the 'Contact Details' page after updating their contact information in the IMS.
Variations	None.
Use Case associations	None.

5.7 Synchronise affiliation data

Actors	IMS
Trigger	When affiliations are updated (or when a user is initially sent to the Accommodation system).
Prerequisites	None.
Post-conditions	The UAM system has up to date information relating to an applicant's (or current resident's) status with the University.
Normal flow of events	<p>1. When an affiliation (of interest to UAM) is added to or removed from a person that exists in the UAM database (i.e. a current applicant, and past or present University resident), a message is published from the IMS and subscribed to by UAM to update the person's record.</p> <p>2. The IMS sends all Affiliation changes to UAM for all IMS identities, but updates only those persons that exist in the UAM database, via an Application Programming Interface (API). The Affiliations of interest to UAM are;</p> <ul style="list-style-type: none"> • Applicant • Undergraduate Student • Postgraduate Student • Doctoral Student • Alumni
Variations	None.
Use Case associations	None.

5.8 Add/update student's ID photo

Actors	ID card system
Trigger	When a new photo is added or updated for a student who is a current accommodation applicant or resident.
Prerequisites	None.
Post-conditions	The photos for students are being updated in the UAM system.
Normal flow of events	<ol style="list-style-type: none">1. A message is published from the university ID card system every time a new photo is added for a student.2. The UAM system updates the photos for students who are current accommodation applicants or residents whenever it receives a message from the ID card system. This updates the UAM database directly via an API.
Variations	None.
Use Case associations	None.

5.9 Retrieve secondary school details and NCEA results

Actors	Applicant, SAP
Trigger	When an applicant selects the 'School Leaver' option for the Accommodation Application type.
Prerequisites	The applicant has logged in.
Post-conditions	Secondary School details and NCEA results (from Year 12 onwards) will be sourced from SAP data (and populated in the UAM database) if this is available at the time an applicant completes the form – and we have received their National Student Number (NSN). Any stored NCEA exam results in SAP will not be displayed to the applicant.
Normal flow of events	<ol style="list-style-type: none"> 1. When the applicant selects the 'School Leaver' option on the UAM application form, the applicant will be prompted for their National Student Number (NSN) if it is not already stored against their IMS identity. 2. When the NSN number is entered, or on confirmation that it has been entered, a web service will pull all relevant NCEA test data and school information from the SAP database. The applicant is no longer required to fill out the section on secondary school details in the Accommodation Application.
Variations	None.
Use Case associations	None.

5.10 Enter scholarship information

Actors	Applicant, SAP
Trigger	When an applicant answers the section on University scholarship as part of the Education question in the Accommodation Application.
Prerequisites	The application has logged in.
Post-conditions	Scholarship information will be pre-populated in the UAM database, from SAP, if it exists at the time an applicant completes the form.
Normal flow of events	<ol style="list-style-type: none">1. The applicant answers information on whether he or she has previously applied for or intends to apply for a scholarship in the Accommodation Application.2. If an applicant has previously applied the information relating to this application is currently stored in SAP (though in the future this will be in Scholarship Management system) and could be retrieved by a web service and posted directly to the UAM database via an API.3. The current scholarship question will be left in space, for cases where applicants intend to apply or have applied for a scholarship that is not centrally managed, i.e. some faculties manage their own scholarships.
Variations	None.
Use Case associations	None.

5.11 Run report

Actors	
Trigger	<p>Once Affiliation data is interfaced into UAM, the business will be able to better identify persons who are either currently staying at a University residence and are not entitled to (as they are no longer or never were a student) or have an outstanding accommodation application but have been refused entry to a programme of study at the University. Reports are required to be written that use the affiliation information of a person in the UAM to determine applicant's eligibility to accommodation. The requirements for the report is:</p> <ul style="list-style-type: none"> • To identify persons with current accommodation applications who are not current students and whose applications for admission have been declined. • To identify current University residents who are no longer active students (or were never enrolled).
Prerequisites	None.
Post-conditions	<p>Data required for the Report will be;</p> <ul style="list-style-type: none"> • UAM ID number • UniversityID • Legal Name • Resident Status • Resident Year • Enrolment Term • Enrolment Status • Residence • Current Affiliations
Normal flow of events	
Variations	None.
Use Case associations	None.