

Online Student Enrollment System

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About Swinburne

- Established since 1908 in Melbourne, Australia
- Malaysia campus since 2000
- Student populations = 1600

Location



Location (zoomed 1/2)



Location (zoomed 2/2)



@ Google Earth



About Information System Project

- Bachelor of Business (Information System)
- Final year
- Team of 2 to 5
- Duration = 14 weeks

About Information System Project

- Internal user
- External user/client
- Examples
 - Online bookstore
 - Online computer store
 - Timetabling

Current Enrollment System

- Allows students to enroll their subjects prior to commencement of a semester
- Done manually
- **On Papers!**

Current Enrollment System

- Human intervention to check rules
 - Pre-requisites
 - Timetable clash
 - Proxy enrolment
- Notification
 - By phone
 - By postal mail

Rules

- Complicated workflow
 - Incorporates strict enrollment rules
 - Subset of university business rules

Subject pre-requisites

Payment status

Course coordinator's decision

Students' seniority

Why online?

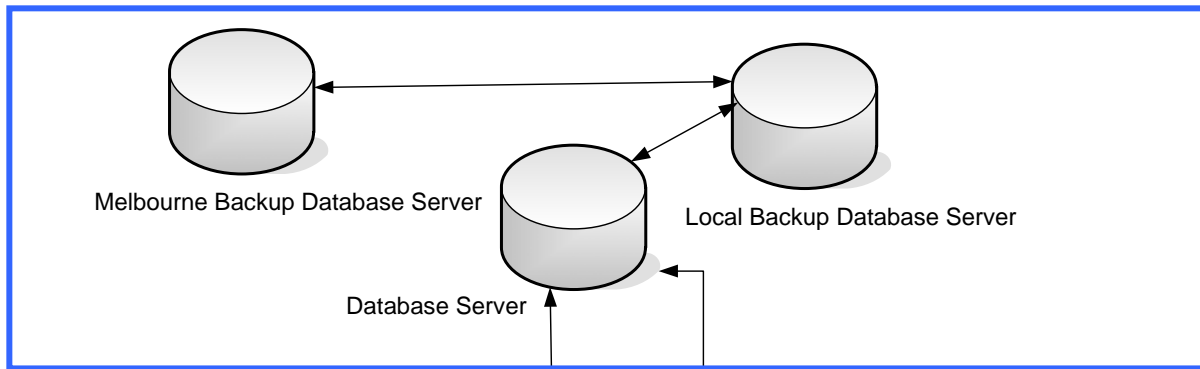
- Enroll outstation students to enroll into their subjects prior to commencement of subjects at their **homes**
- Allows access from diverse devices
 - PC
 - Laptop
 - PDA
 - Mobile

Why online?

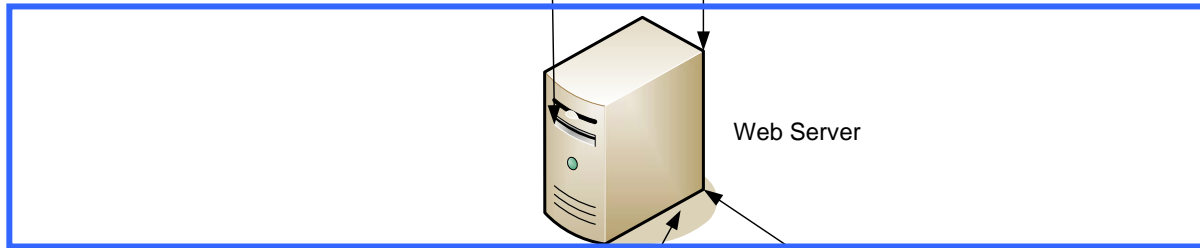
- Allows Student Administrators (SA) to make different queries
- Notification mechanism
- Minimize human errors
- Service oriented satisfaction among students

Architectures

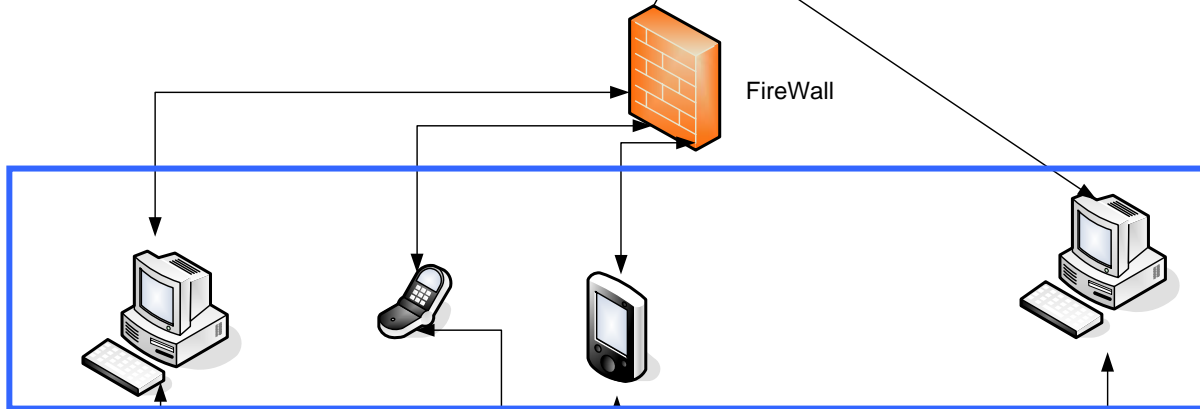
- 3-tiers
 - Oracle server
 - Business logics
 - Presentation



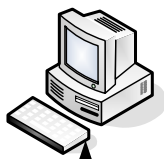
Data Layer
(1st Tier)



Business Logic
Layer
(2nd Tier)



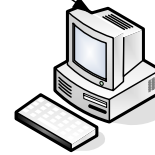
Presentation
Layer
(3rd Tier)



Student



Student (Mobile user)



Administrative Staff

Architectures

- Oracle server
 - Connection using ADO.NET
 - OLE-DB
- Business logics
 - XML
 - Databases
- Presentation
 - ASP.NET
 - Separates presentation and programming logics

Background

3-years study

Yr/ Sem	1/1	1/2	2/1	2/2	3/1	3/2
Sem	1	2	3	4	5	6

4-years study

Yr/ Sem	1/1	1/2	2/1	2/2	3/1	3/2	4/1	4/2
Sem	1	2	3	4	5	6	7	8

Background

- In-between
 - Failures
- New
 - Enrolling their *first* semesters
- Continuing
 - Completed at least *one* semester

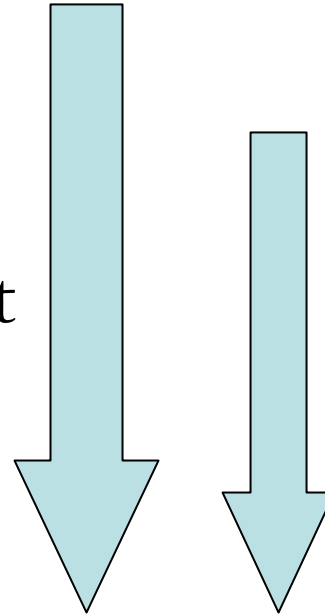
Background

- Academics results
 - High Distinction, Distinction, Credit, and Pass
 - Resit
 - At Risk
 - Exclusion

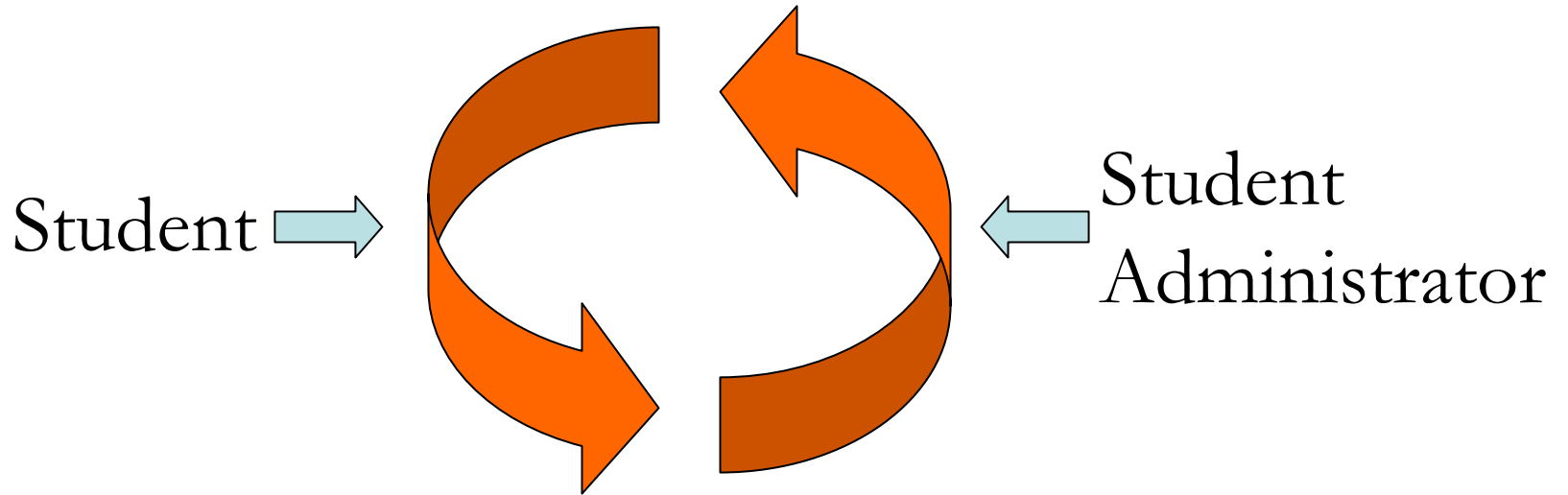
Enrollment in phases

New *Continuing*

1. New Enrollment
2. Current enrollment
3. Approved enrollment
4. Transcript
5. Graduation



Two-dimension



Enrolment workflow

Business rules

- XML

```
<prerequisites>  
  <AWT>  
    <prereq1> Subject X </prereq1>  
    <prereq2> Subject Y </prereq2>  
  </AWT>  
</prerequisites>
```

Business rules

- Database

Subject ID:	<input type="text" value="HIT1052"/> <input type="button" value="Search"/>
Subject Name:	<input type="text" value="Software Development 2"/>
Offer Status:	<input type="text" value="Yes"/> ▼
Max Student per Tute:	<input type="text" value="25"/>
Prerequisites	<input checked="" type="checkbox"/> Yes/No
	<input type="text" value="Select"/> ▼
	<input type="button" value="Select"/> <input type="button" value="()"/> <input type="button" value=" & (And)"/> <input type="button" value=" (Or)"/> <input type="button" value="Delete"/>
	<input type="text" value="HIT1051"/>

Notification mechanism

- Audit log file
- Email template
- Emailing
- SMS using Mobile phone
 - Bluetooth
 - SDK
- Interface on various devices
 - WML
 - HTML

On Mobile Phone



On Mobile Phone



Reporting

- Student ID
- Student Name
- Country
- Gender
- Course by School
- Subject by Course
- Scholarship candidates

Conclusion

- Simple interactivity
 - Web page for both PC/laptop and mobile devices
 - Email
 - SMS
- XML and Database as repository for business rules

Acknowledgement

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