



QUESTnet

Cloud Platforms at Curtin University (Australia)

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Systems

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Curtin University: Who are we?

- Curtin University of Technology is Western Australia's largest university. Around 44,000 students attend a total of 16 Curtin locations, including campuses in Sydney, Singapore and Sarawak, East Malaysia.

Vision

- To be an international leader shaping the future through our graduates and research, and positioned **among the top 20 universities in Asia by 2020.**

Mission

- Curtin is committed to **innovation** and **excellence** in teaching and research, for the benefit of our students and the wider community.

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What is the Cloud?

Cloud computing is Internet-based computing, whereby shared resources, software, and information are provided to computers and other devices on demand, like the electricity grid.

(Wikipedia)

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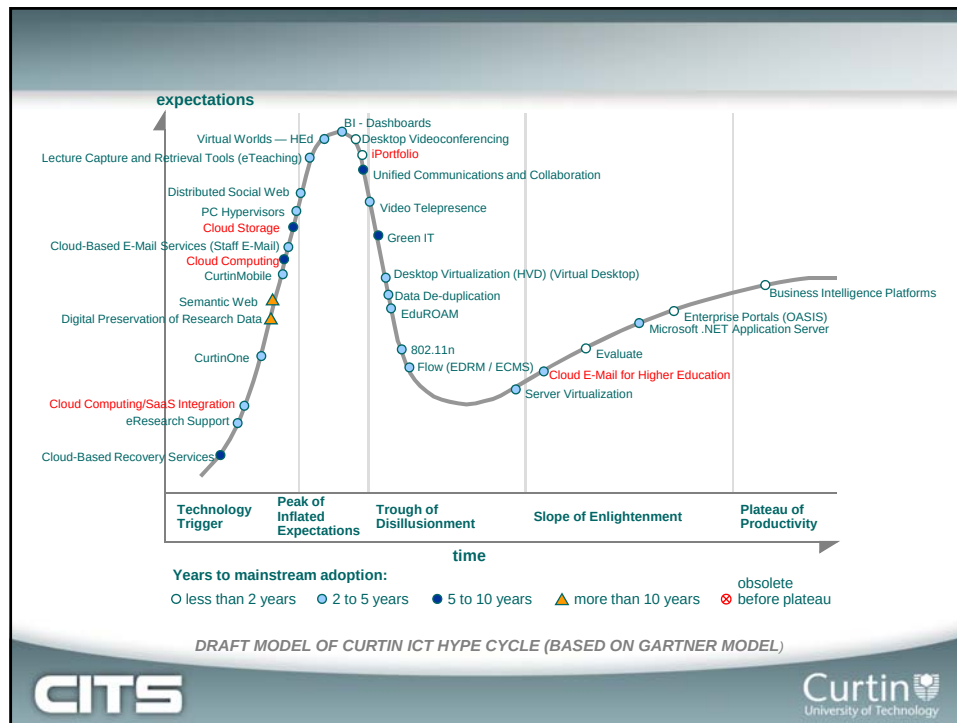
What does cloud mean for Curtin

Opportunities to:

- Reduce costs
- Move from Cap-ex to Op-ex budget
- Provide higher levels of service (24x7 support)
- Much simpler architecture
- Elasticity
- Concentrate on high value IT for the University

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Strategic Partnerships



Microsoft®

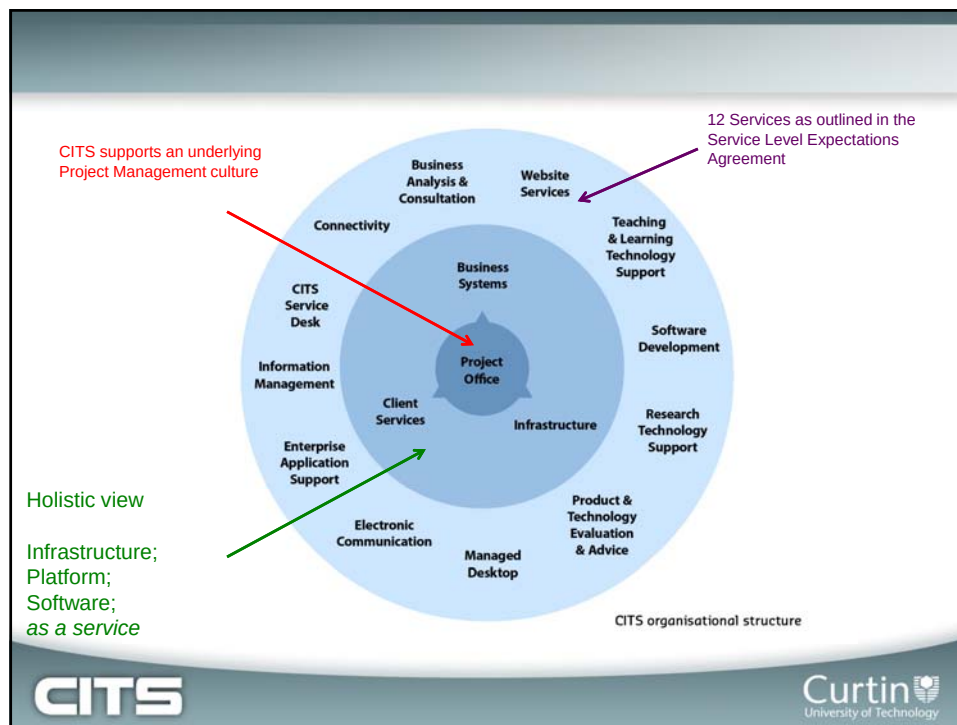


EMC²
where information lives®



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Curtin Environment

- OS Types:
 - Windows
 - VMware
 - Solaris/unix
- Application types:
 - Microsoft Exchange
 - Databases: Oracle and SQL
 - Digital lectures.
- Total size: Approx. 80TB.

Student Email @ Curtin

- Curtin provides student email accounts to all students to enable students to communicate and collaborate with staff and each other.
- In 2009 the email solution for students utilised the Sun JES technology.
- Curtin was restricting mailbox sizes to about 40mb.
- Students were describing the email web client as 'clunky'
- To update to the latest version would have been a large migration project.

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Email in the cloud

- Many Australian universities are utilising cloud email solutions for students
- Cloud email is largely a choice between Google and Microsoft for most universities.
There is no wrong answer
- In 2009, Curtin made the choice to go with the Live@Edu platform.

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Live@Edu takes student email to the cloud

- Live@Edu is a cloud email platform hosted by Microsoft
- It is based on Microsoft Exchange 2010
- Students are given a large email quota
- The web interface is familiar (OWA)
- Thick client interfaces (eg: Outlook) and mobile interfaces are available

Microsoft®
Live@edu

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Success Stories

- In November 2009 the project to migrate all students and their mailboxes to Live@Edu was established.
- By January 2010, 80000 students are now using the Live@Edu email solutions.
- Students now have large email quotas (10Gb)
- Graduates can now retain their student email accounts.
- Infrastructure and Support costs have been reduced.

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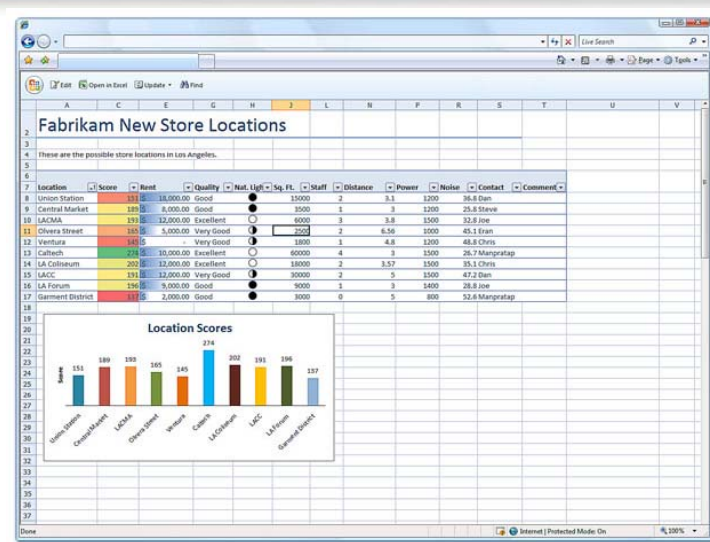
...but wait there's more!

- Curtin now provides calendaring for all students.
- Students can now use the additional functionality in Live@Edu including Skydrive, Office Web Apps, Blogs.

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Office web apps

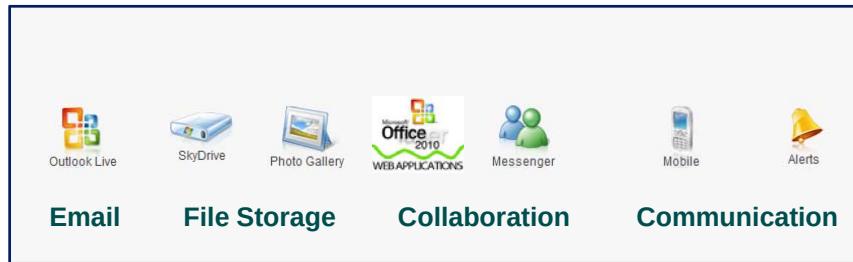


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Live@Edu as a platform

Curtin is now looking at ways to leverage the Live Services as a platform.

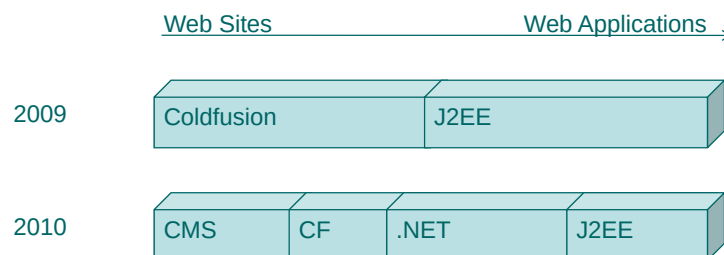


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Application Development

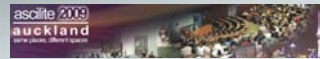
Application development technologies at Curtin



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Ascilite 2009



- Building engaging physical and virtual learning spaces: a case study of a collaborative approach.

Reference: Oliver, B. & Nikolettatos, P. (2009). Building engaging physical and virtual learning spaces: A case study of a collaborative approach. In *Same places, different spaces. Proceedings ascilite Auckland 2009*. <http://www.ascilite.org.au/conferences/auckland09/proc/oliver.pdf>



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iPortfolio

Curtins iPortfolio is an online space for students and staff to create, share and publish evidence of their learning achievements and professional development.



Collect



Feedback



Showcase



Job Ready

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iPortfolio

Collaboration between CITS and OTL

iPortfolio
It's all about you!

User ID: _____ Password: _____ [Login](#)

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Portfolio Overview
It's all about you!

What is the iPortfolio?

- Overview
- Overview
- iPortfolio General Resources
- Teaching and Learning Resources
- Example iPortfolios

Login messages
You can also login to this site via [Oasis](#).

Current News
iPortfolio background processing
To provide a better quality of service, the iPortfolio will be undergoing maintenance from Monday 28 June - Sunday 4 July 2010. The iPortfolio will be available throughout this period, but you may experience a degradation in performance during this period while the work is being done in the background. We appreciate your patience during this period, and look forward to an improved user experience upon its completion.
[Book an iPortfolio hands-on training session now!](#)

About an iPortfolio training session or professional development seminar

Date	Time	Topic	Trainer
Wednesday 4 August 2010	12:00-1:00 PM	An introduction to the iPortfolio (hands-on)	Barley 207 117
Wednesday 11 August 2010	12:00-1:00 PM	iPortfolio entry for academics: staff building Teaching Portfolios	Barley 207 117
Wednesday 18 August 2010	12:00-1:00 PM	An introduction to the iPortfolio (hands-on)	Barley 207 117
Wednesday 25 August 2010	12:00-1:00 PM	Creating video resources in the My Showcase tab and publishing them to iTunes U	Barley 207 117
Wednesday 8 September 2010	12:00-1:00 PM	An introduction to the iPortfolio (hands-on)	Barley 207 117
Wednesday 22 September 2010	12:00-1:00 PM	iPortfolio entry for academics: staff building Teaching Portfolios	Barley 207 117
Wednesday 29 September 2010	12:00-1:00 PM	Creating video resources in the My Showcase tab and publishing them to iTunes U	Barley 207 117
Wednesday 6 October 2010	12:00-1:00 PM	An introduction to the iPortfolio (hands-on)	Barley 207 117
Wednesday 20 October 2010	12:00-1:00 PM	Creating video resources in the My Showcase tab and publishing them to iTunes U	Barley 207 117

Click [here](#) to book a place now!

Are you a Curtin Graduate School of Business student? Check with local staff about hands-on sessions held at the Perth City Campus.

<http://iportfolio.curtin.edu.au/>

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Brief description:
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Evidence upload
Please choose an evidence file type:
[Photo](#) [Video](#) [Audio](#)

Upload Evidence - Step 2
Graduate Attributes:
☒ Discipline Knowledge
☐ Thinking Skills
☐ Information Skills
☐ Communication Skills
[Next step](#)

Evidence upload
Please choose an evidence file type:
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Uploading
Uploading your evidence now... please wait...

Success
Your evidence has been uploaded.
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Application development challenges

When development is required Curtin is faced with common challenges:

- Scalability – frequently applications are rolled out to large numbers of users (storage and compute resources)
- Support requirements – increasingly we need to be able to provide greater levels of support, however we don't have 24x7 infrastructure support

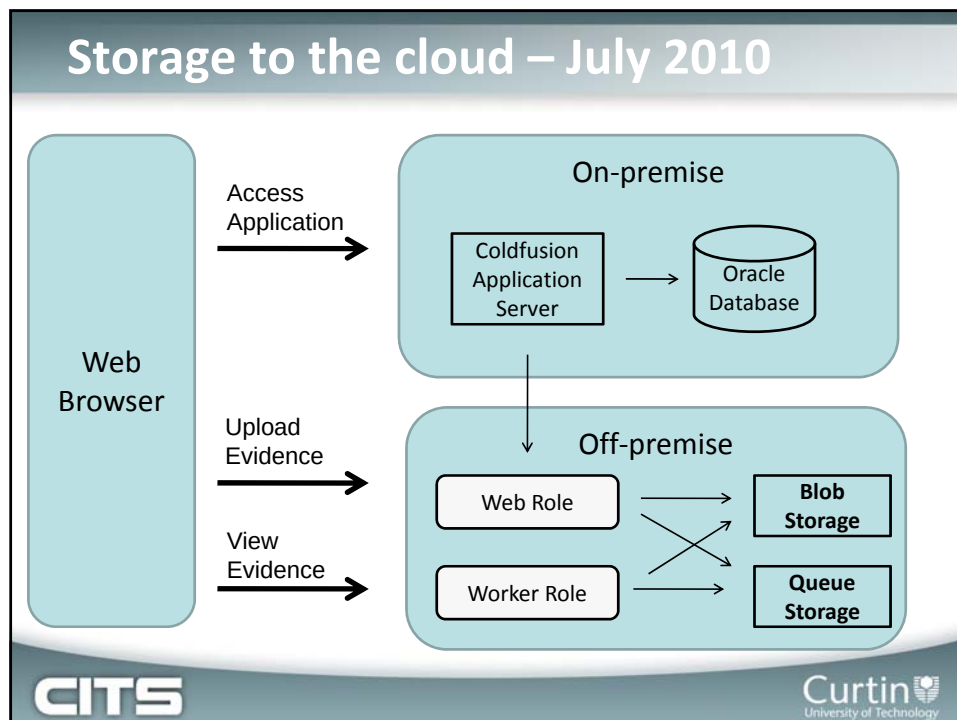
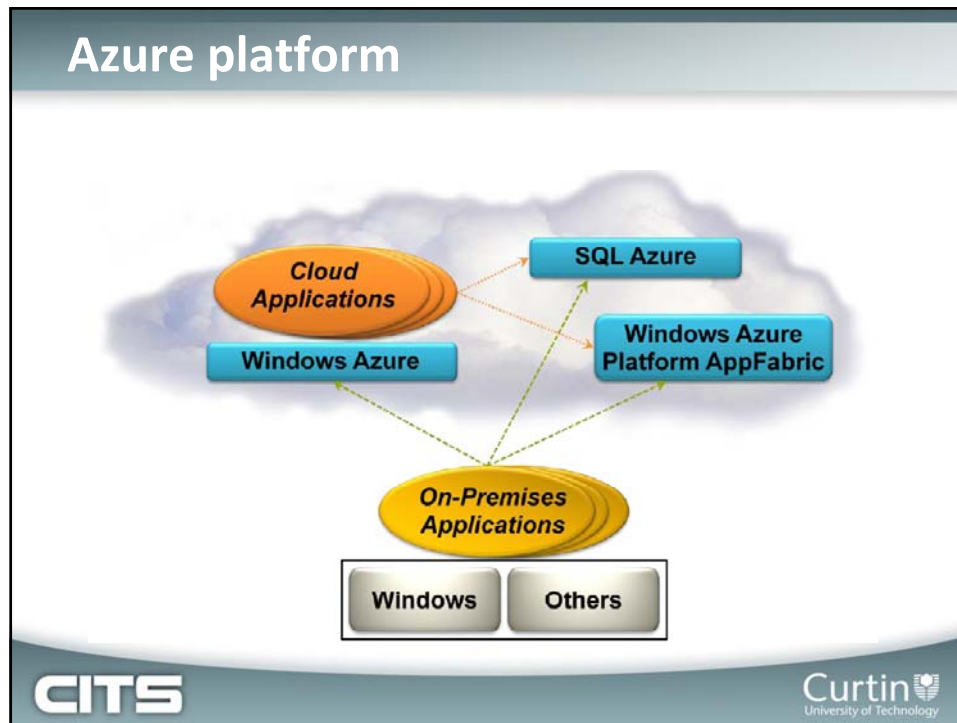
Azure

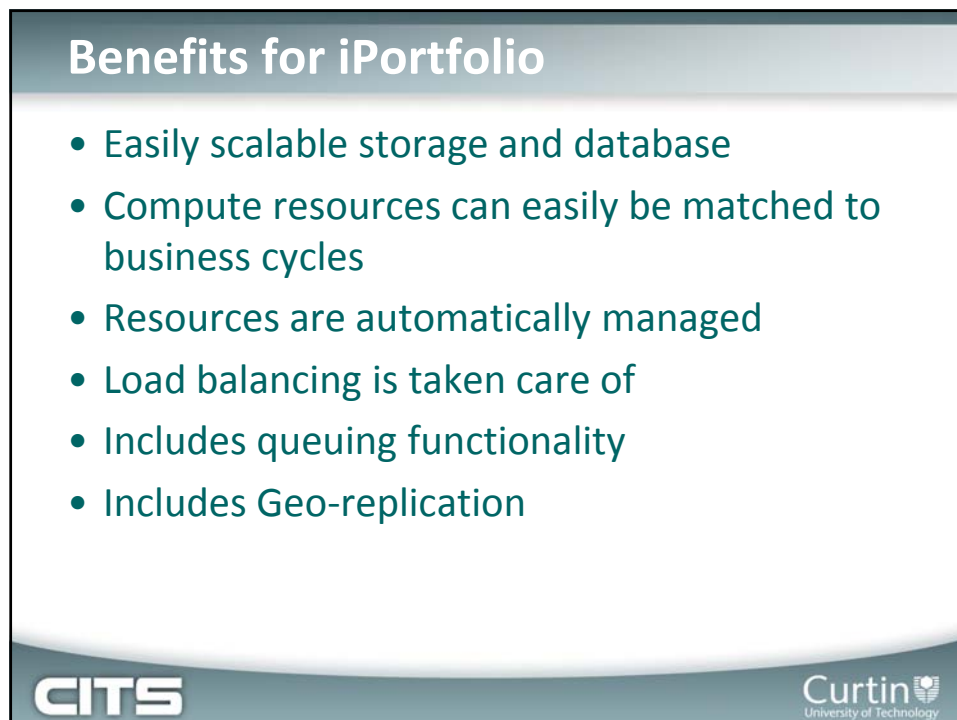
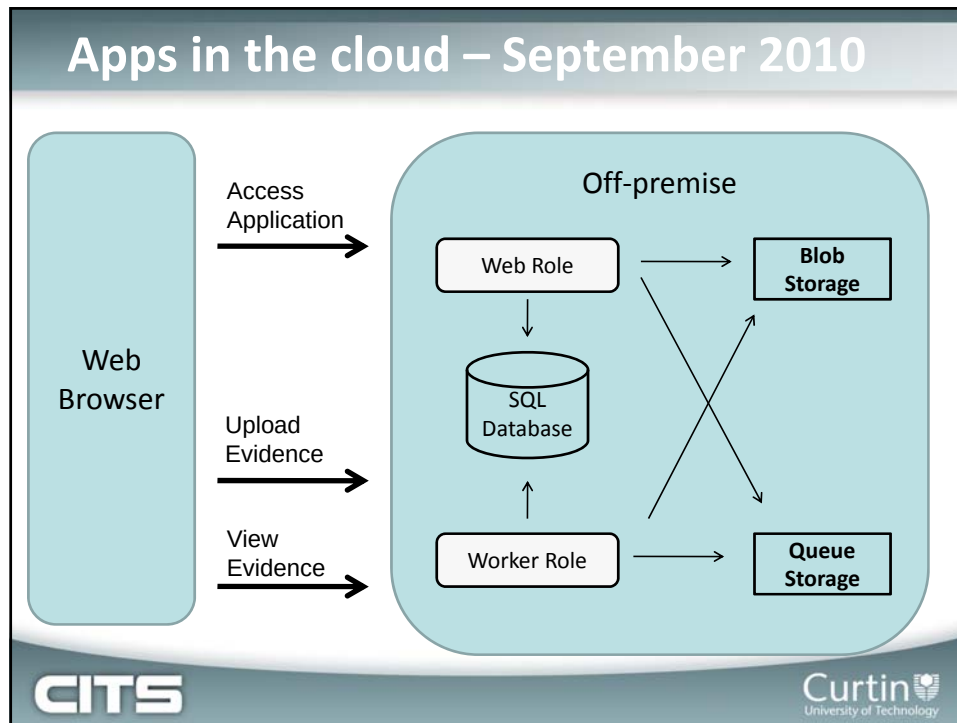
Microsoft's Azure platform is a group of cloud technologies, each providing a specific set of services to application developers.



Azure

- Azure contains a cloud operating system "Windows Azure".
- Can run .Net applications along with other technologies such as PHP.
- Is a platform as a service (PAAS) offering
- Has development, staging and production facilities.





When to use cloud

- When there are significant changes to scale (elasticity is required)
- When data is not highly sensitive
- When the service is mature (eg: email)
- When there high availability support requirements

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THANK YOU



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