

Programming Mobile Devices in a Computer Science Program

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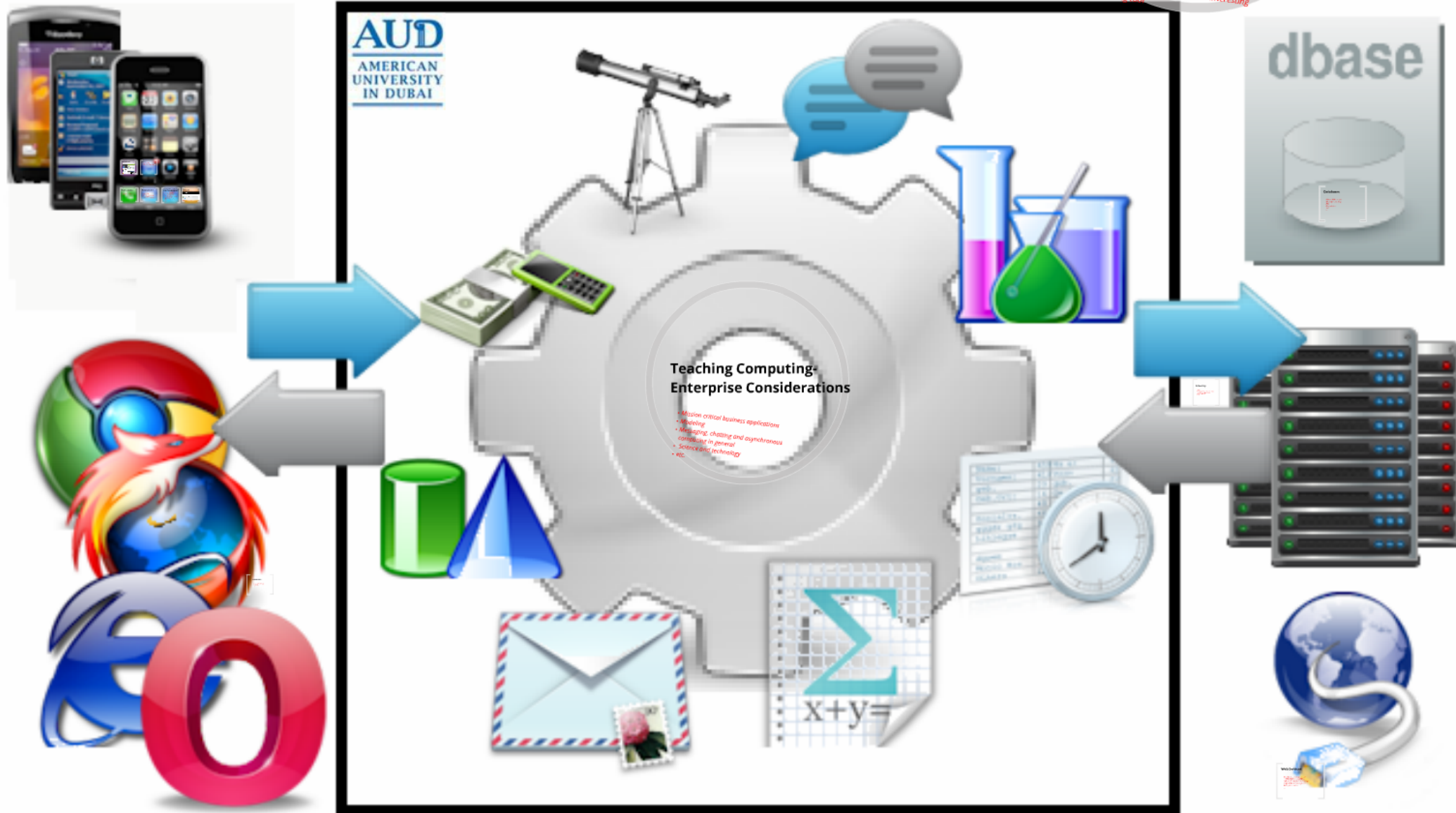
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Conclusion

- Computing is ubiquitous presenting many new challenges to Computer Science (or similar)
- New mobile devices can be a challenge or an opportunity
- Presenting mobile computing in the context of the enterprise can make it an interesting learning tool



Teaching Computing- Enterprise Considerations

- *Mission critical business applications*
- *Modeling*
- *Messaging, chatting and asynchronous computing in general*
- *Science and technology*
- *etc.*

Enterprise 2.0

- *Mission critical business applications*
- *Modeling*
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- *Science and technology*
- *etc.*

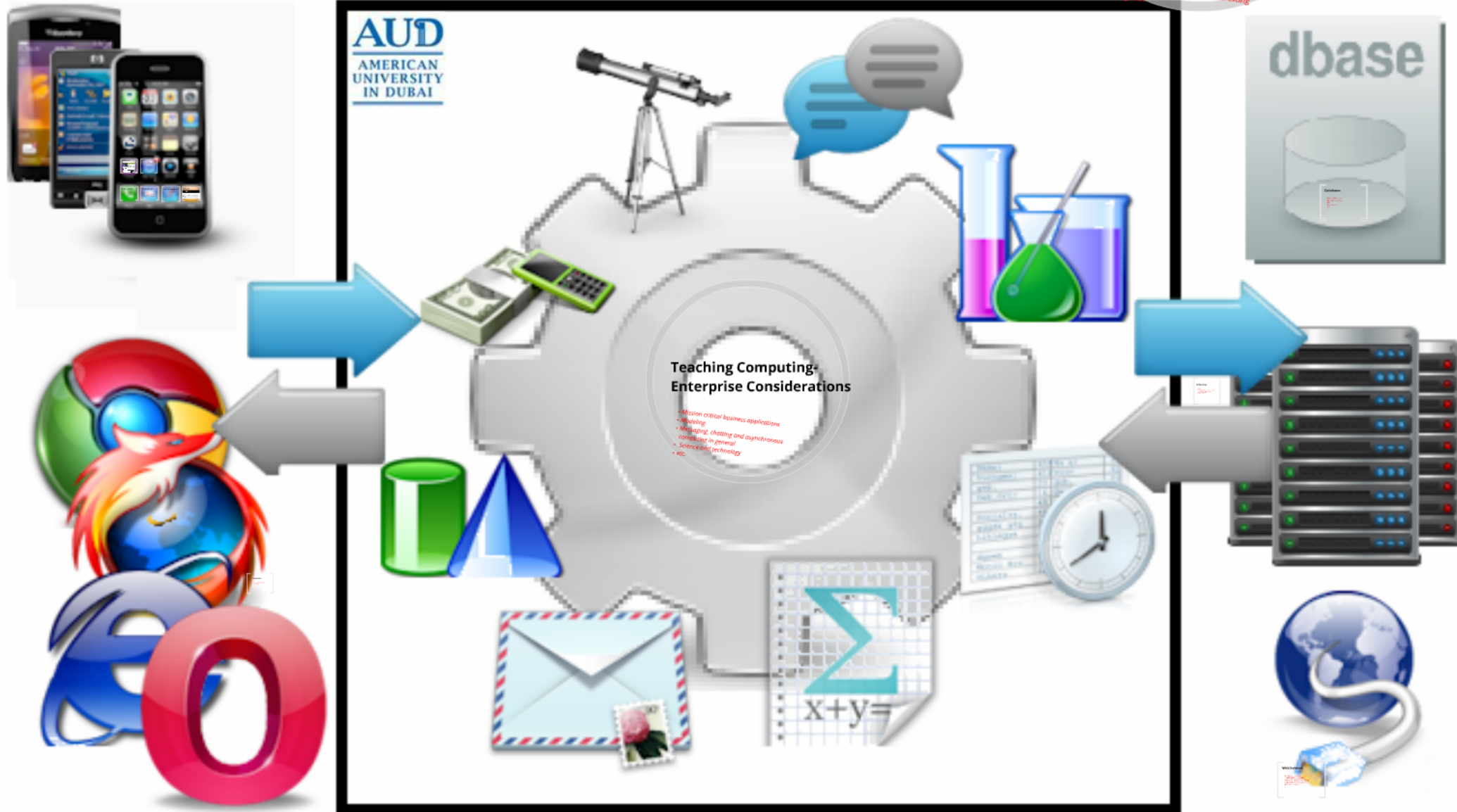
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Networking

- *Protocols*
- *Operating system services and administration*
- *Information and Network Security*
- *Routing and Switching*
- *Wireless*

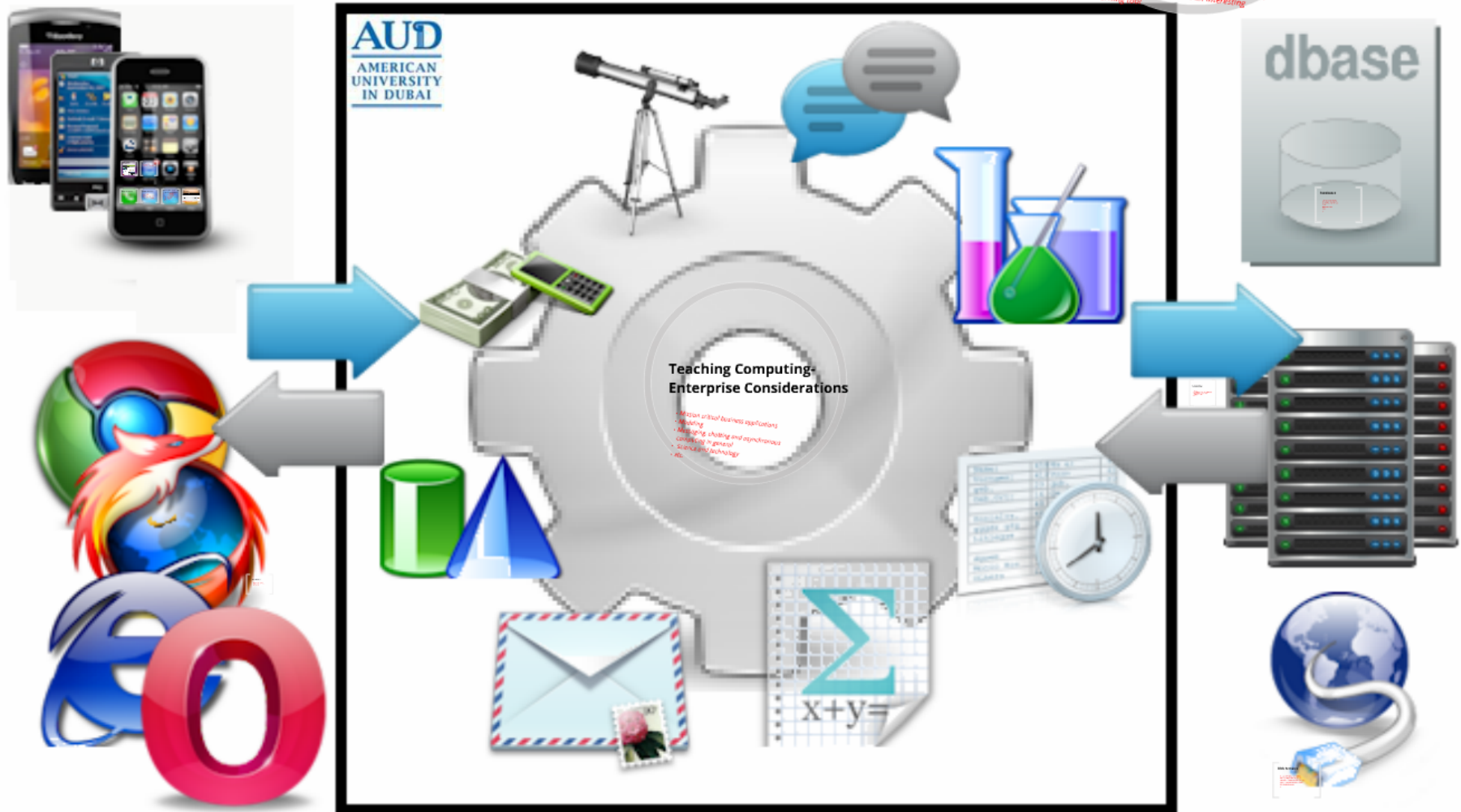
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Databases

- *Relational DB concepts*
- *DB analysis and design*
- *ERDs*
- *Normalization*
- *SQL*
- ...

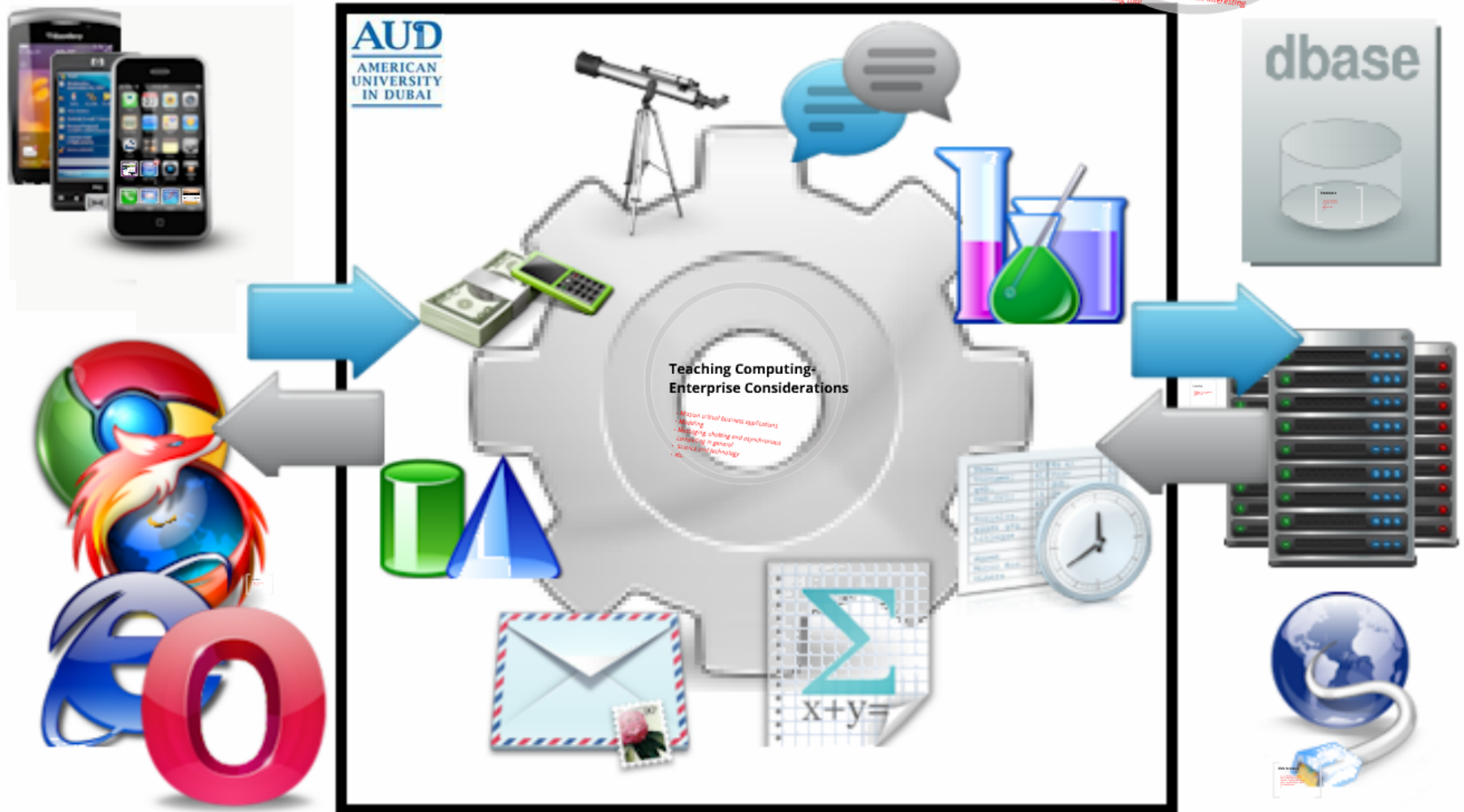
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Web Services

- *Distributed computing concepts*
- *CORBA, RMI, Remoting, EJBs, ...*
- *XML and its validation and parsing*
- *SOAP, WSDL, and naming services*
- *IDE implementations*
- *...*

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User Interface

- *Human computer interaction issues*
- *HTML, HTML5, CSS, and relevant tools*
- *Layouts and design*
- *3D graphics, OpenGL*
- ...

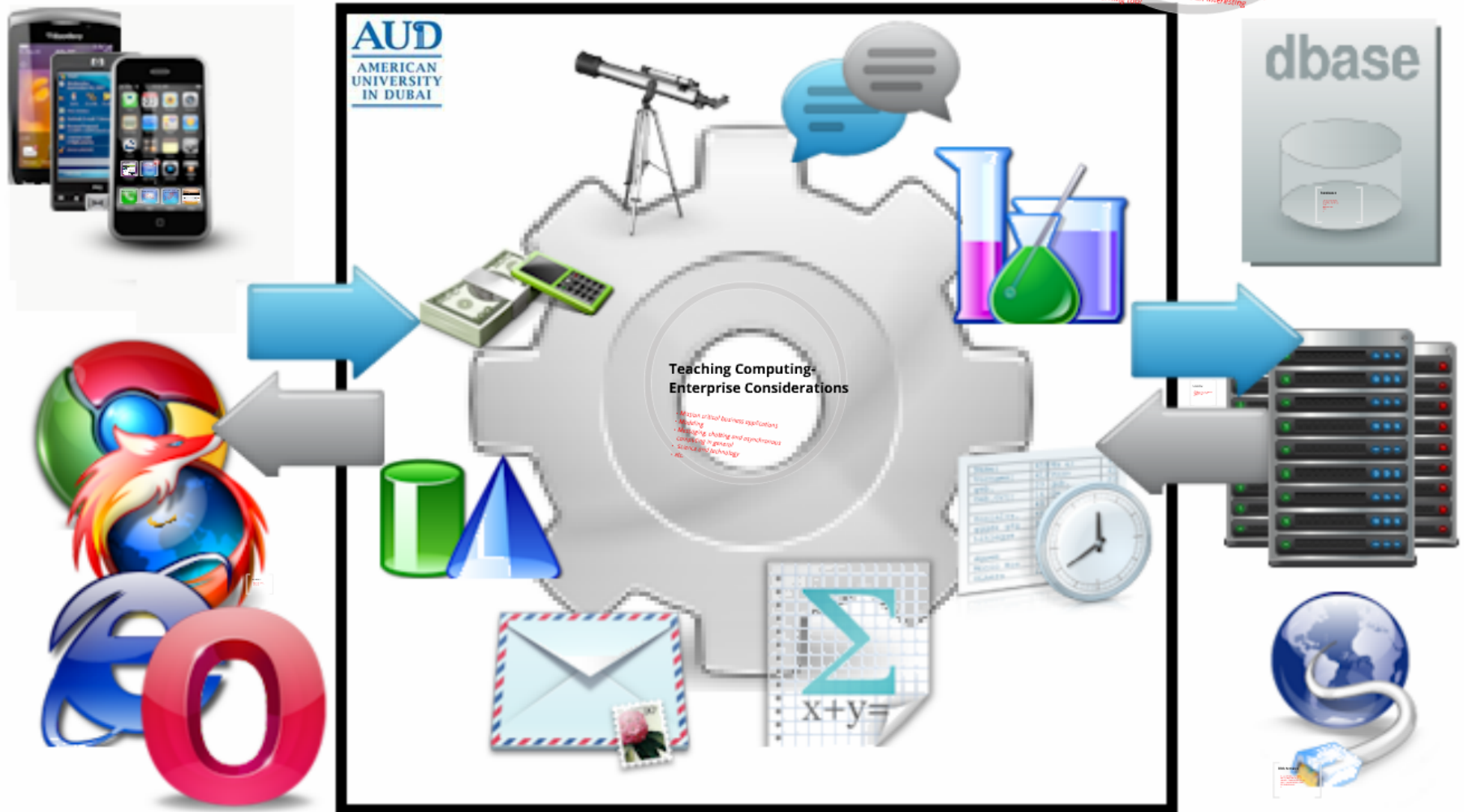
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Mobile Computing

- *New paradigm and ecosystem*
- *Certainly new entrepreneurial venues*
- *Must provide new opportunity for CS education*

Multiple platforms

- *Android: Java, eclipse*
- *Blackberry: Java, eclipse*
- *Apple: Objective C, Xcode*
- *Nokia: C++, Qt Creator, eclipse, Visual Studio*
- *Microsoft: C#, Visual Studio*
- *Semi platform independent using HTML5/CSS3*

Exciting way to include the entire computing picture

As an educator, can use the creation of an innovative and fun mobile application to touch many computing areas:

- *Human computer interface design*
- *Programming*
- *Software engineering analysis and design (large enough to simply hack at it)*
- *Design patterns (MVC)*
- *Databases (embedded and remote)*
- *Distributed and asynchronous computing*
- *Web services*
- *Security*
- *...*

Examples



BlackBerry App World™ [Apps](#) [Games](#) [Themes](#) [Ringtones](#)

[BlackBerry App World](#) > [Apps](#) > [Health & Wellness](#) > [Fitness](#) > [joyFit - Social Fitness Entertainment details](#) >



joyFit - Social Fitness Entertainment

By [yasgard](#)
★★★★★ | 8 reviews
Rated:  Teen

FREE

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Item Information

Version: 0.1.9.8
Release: May 26
File Size: 347 KB
Support: [ybenm](#)

Developers: Alex Fuchs, Jamal Elboloushi and Ahmad Yasin BenMosbeh
Advisor: Khalid Khawaja

LinksSaver

**Google play**

Search

SHOP ANDROID APPS

Links Saver
Khalid Khawaja



★★★★★ (9)
INSTALL

Users who viewed this also viewed



App Backup & Restore
INFOLIFE LLC
★★★★★ (3,689)
Free



JuiceDefender - battery sa...
LATEDROID
★★★★★ (124,990)
Free



Bataria - Battery Power Sa...
JAPPKA
★★★★★ (1,123)
Free

OVERVIEW

USER REVIEWS

WHAT'S NEW

PERMISSIONS

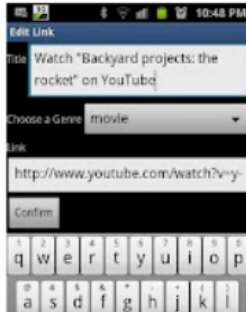
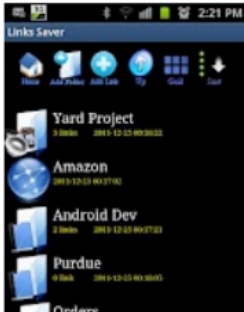
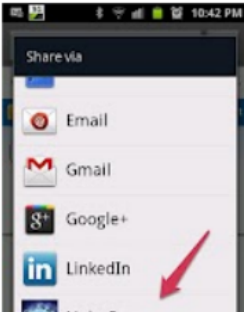
Description

Simplify storage, sharing and organization of internet links

An easy to use Book Marking application for easy storage and organization of links you encounter in browsers, emails, blogs, etc. Like to accumulate a storybook of links before sharing? Then, build these in a folder and share when you are ready. Or, need the link for an important article? Then, maybe you need this application to store and organize important internet links you encounter. Don't have time to go over the many links you encounter? Store in a Links Saver folder and come back to them at your convenience.

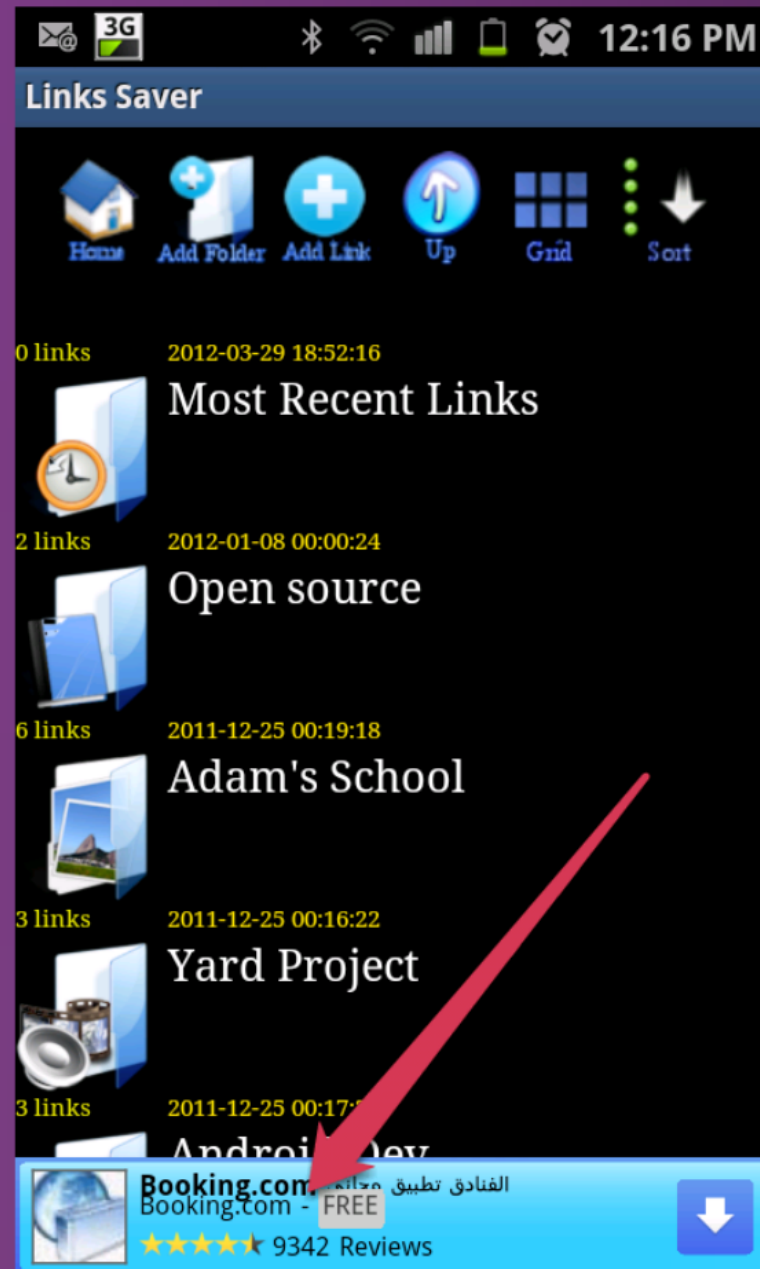
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App Screenshots





entrepreneurial venues



...entrepreneurial venues



Campaigns

▸ Sites & Apps

▸ Reporting

▸ Tools

▸ Account

Account Information

Account Summary

Add Funds

Redeem Coupon

Payment Details

Notification Settings

Transfer Funds

Campaigns



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Campaigns

...more

- *Personnes Café - BlackBerry*



- *Music Connect - Android*



- *Family Tree Builder & Social Network - Nokia*





Personnes Café is a social network mobile food recipe share application for anyone who wishes to discover new methods and share their own food innovations. Personnes Café eases people in deciding what to cook. In addition, it gives people a chance to share their cooking talents and while adding excitement to their lives aside of their tensed work schedules. Personnes Café is a beneficial yet entertaining learning mechanism for cooking from potential talented cooks.

Developers: Mina Ashamalla and Noor El Khalil

Advisor: Khalid Khawaja



Music Connect is a mobile application which integrates music player and social network platform. Music Connect allows social interaction among music listeners and the songs on their mobile device. Music connect allows users to comment on a song, upload image, post status and chat with other users. All music comments are directed towards on single copy of the song therefore allowing users to view all music comments directed to a particular song (singleton).

Developers: Ibrahim Musa Adam and Mustapha Kazaure|

Advisor: Khalid Khawaja



family tree builder & social network

Family Planet: a mobile application that allows users to build their family tree. Users can create their own tree and/or join other trees. Members of the family can add and update relatives to their family tree. Members of the family can share photos and historical documents about the family. Members can comment and send invitations to other family members in the tree. Only family members can view the family tree. This application will include online chatting between the family members. The Family Planet application will support offspring feature that will predict the characteristics of future offspring based on genetic rules. In addition, this application will support law of inheritance division by calculating the amount of inheritance for each family member based on some religious beliefs. Family Planet is a social networking application that allows family members to share moments and keep in touch.

Developers: Mohammed Jouhari and Abdallah Jamaledine

Advisor: Khalid Khawaja

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