

Quarterly Mobile Apps, Business Intelligence, & Database

BILT Meeting December 10, 2014

Meeting Minutes

Introductions by Judith Morel

Mobile App Development

Dawn Zapata – We'll be launching our stackable certificates in Spring 2015, which will be about 16-17 credits. The first course that we will be launching officially is Intro to Android Programming; it will be going in to the curriculum committee to be passed by our College Forum. I will turn it over to Professor Miller so she can give you more details.

Professor Miller – We're going to do a stackable certificate that will be set up with 16 or 17 credits in the first stack, 29 credits in the second stack, and the third stack is the full AS. For the first stack, there are two possible tracks: Android devices or Apple devices. We will eventually have a mobile web version as well. The things in green are common to those certificates. The only difference between the Android devices and Apple devices is the Programming for Android/Apple courses. This way, we could get students introduced to the idea and introduce a little design in there. The Intro to Programming Mobile Devices course (CITXXXB) will go over all of the mobile devices. Students will get an overview of what goes with Windows, Android, Apple, and mobile web. In the second 29 credit stack, they will do Programming for Windows Devices, as well as choose between Apple and Android programming. In addition to that, we have included SQL Programming and Linux Essentials. It will cover the same material but a little more in depth. For the AS, we're adding a mobile web piece and programming for Android devices 2/Apple devices 2 depending on which track applies. There will be a capstone project and two electives that students will need to choose from. My question is do we want them to have strength in both Apple and Android development? Right now, if they do the AS in Mobile App Development, they have strength in either Android or Apple with a little support in the other areas. I can give them more in terms of the topics that are simply support in the program (Apple or Android) or I can give them more support in Programming, for example.

Matt Glover– I'm going to restate it so that I know I understand. There are two tracks; Apple and Android. You also have supplementary training around basic programming within the mobile community. You're asking whether we should keep two different tracks and continue to flower training with supplemental training tracks. Is that correct? I like the fact that you have two different tracks. One of the biggest benefits of having a precise track is to allow someone to be educated in one track. In a company like mine, we do things in Apple and very little in Android. If for some reason we want to explore Android, we could. Offering supplemental training with other mobile technologies is a good strategy going forward.

Adrian – I actually like the two tracks as well.

Chan Beauvais – I have one minor concern; I see a SQL programming course but I see data structure as being an elective. Is that going to work if someone doesn't take the data structure course? Will they have enough background in data to understand that stuff?

Professor Miller – Here at Bunker Hill, the SQL course is an introductory course so all of that is built into the course. The data structure course is actually a much higher level than the introductory SQL course.

Matt Glover - Having some type of education on integration and integration with other core primary systems provides good foundational knowledge. Nothing is going to work on its own.

Stackable Certificates – Bellevue

Judith Morel – We have many stackable certificates at Bellevue, including Database Analyst, Database Report Developer, Business Intelligence Analyst, Business Intelligence Developer, Database Administrative Assistant, Database User Specialist, and an AAS in Information Systems. Recently, we have also introduced a couple of four year degree Baccalaureate applied programs in Database and Software Development. I have not included them in the grant because there wouldn't be any students that would graduate before the grant is over. I did want to go over a new course that we've created which is Problem Solving for the IT Professional. This course presents a wide variety of strategies to build a person's problem solving skills related to situations in IT. Students self-assess their preferred problem solving styles, research the value of problem solving/decision making skills in the workplace, apply problem solving techniques, and practice creative/lateral thinking techniques and communication skills to approach technical and non-technical problems. The learning outcomes for this course are the following:

- Articulate problem solving strategies and techniques in relation to IT problems.
- Differentiate between lateral and vertical thinking.
- Given a problem orally, in written format and through observation, be able to concisely state the problem.
- Identify possible causes of a problem and be able to evaluate the probability of each.
- Plan a course of action to arrive at a solution.
- Practice a variety of techniques for creative thinking.
- Given a problem and having arrived at a solution, analyze the process.
- Use written communication to concisely communicate the problem and solution to an appropriate client.
- Apply problem solving strategies to solve a technical problem in an area unfamiliar to the student.
- Use technology tools to support decision making.
- Define and apply "system thinking" to problems.

Judith Morel – Our students will work in teams so it gives them real world experience.

Matt Glover – Is the focus on diversity in problem solving? When I read Problem Solving for the IT Professional, I think troubleshooting.

Judith Morel – No, the focus is on troubleshooting--- different ways to approach a solution to a problem.

Matt Glover – Okay, I think I would like to see the details.

Judith Morel – I can go ahead and get that put together for everyone.

Trends

Chan Beauvais – Here at Costco in the Data Management team, we're looking at graph databases and document databases, and trying to identify cases where it makes sense to utilize these technologies. We're already finding really choice options for graph databases. Document database also looks very promising. One of the use cases is that we're modernizing our entire portfolio across the board. We've also been looking at how we know when we can retire a particular part of a whole legacy system. The key element is connecting things: For example, connecting business entities to data files, data files to the programs that use them, etc. We're also looking at the replacement software that would replace other elements. All of that needs to be connected, and it looks like graph database technology is a better alternative than relational database technology because of the hierarchies that would be created. At some point in time, we might want to look at emerging trends. I think this would be great for a capstone course.

Carolyn French – I'm fairly new to the Programming BILT but I wanted to add that I agree with Chan. In terms of business intelligence, I see a lot of integration work that involves business intelligence, including the Hadoop trend that is becoming really popular for the no-SQL data. As Chan stated, that is a trend that you might want to look at in terms of technology and preparing students for the workforce- business intelligence with Hadoop or no-SQL platforms.

Silvia Unwin – We're definitely looking at that trend. We do have a baccalaureate program at Bellevue College, so that is where we want to incorporate that. We want to give students hands-on experience handling big data so that they understand how it works. We also want to expose them to the no SQL. In regards to the two year program, we may introduce it in one module, but that knowledge will definitely be provided in the baccalaureate level courses. It is good to know that we're on the right track.

Carolyn French – I recently went to a road show with Panteao and MongoDB. I know they are good about partnering with institutions. I would think that will be a very popular package.

Silvia Unwin – Thank you, that is good to know.

Chan Beauvais – We're just looking at MongoDB to figure out what is the better alternative to relational database technology. I think it is great that everyone knows there are alternatives now.

Carolyn French – I would like to add that working in the oil and gas industry, there is heavy use of GIS and BI in that industry. Most products used have a location component, even though it might be open source. That might be an area of knowledge that you might want to expand on, in terms of teaching students the location analytics and how that works. I'm not sure what the relationship is like between the software packages that you're using or the constraints. I just know that when I went through a two year program for GIS, all we could do is use the system but not install it. What is significant today for students is understanding the configuration when it comes to additional components like the GIS piece.

Judith Morel – One of our business intelligence courses features an exercise using Tableau but I don't know if it focuses specifically on location with respect to GIS.

Silvia Unwin – At this time, it doesn't, but I like the idea that Carolyn mentioned regarding configuration software. A lot of the time we don't have that capability, but understanding the configuration is something our students would probably need to know.

Collin Program Update

Elizabeth Pannell – Our program is a little farther along, and we're looking at revising it a little. I was interested to see what the common courses are for teaching iOS. We run into issues with how Apple has agreements set up. We don't actually go into and do iCloud until the last class. We cover it but it may just be in theory in the first class due to technical limitations.

Ann Beheler – We do have an iOS class that is going to be up on NTER. It is a little outdated but people can go ahead and use it as a start. With iOS, you have to run as fast as possible to keep up.

With no further discussion, the meeting adjourned at 10:50am.

The next meeting will be in March. Happy holidays to everyone!