

End of Semester Reflection

Entering ISAT 340 I was extremely excited to see what kind of coding I would be learning about. I expected the class to be very similar to ISAT 252, where we did tutorials on programming languages and software. I thought that there would be lots of out of class work googling how to use coding to solve any problems I would face during the semester. These expectations were built on the experience I had with you as my professor in ISAT 252. Although as the semester began I saw that this class would be very different compared to ISAT 252 I was still excited with what was planned for ISAT 340. Once I began to see what the class would actually be about I set my goal to complete the mobile app that I was going to be designing. At first when this semester began and I was able to form my idea for a mobile app, the goal seemed very achievable. However as the semester preceded it became clearer and clearer that this goal was a lofty one. Once I saw this my goal changed to just getting as far with the project as possible. This to me was to begin coding and have to stop somewhere in the code development phase of the project. I also believed that if I was able to make it to this point that I would definitely would finish the mobile app over break, next semester, or even during the summer. Although I never made it that far into the development process I have gained a much better understanding of what would go into the development of a mobile app. With that being said I do think that at some point in the future I will return to this app idea and I will finish this project. Even now that I didn't get as far with the development as I had originally intended I am happy because I did a better job on what I was able to finish compared to if I had rushed through the early steps to get to the coding. This class, just like with ISAT 252 has really given me a better understanding of software development and has only increased my interest in it.

Over the course of the semester I spent the most time on designing the interface of the mobile app. I drew numerous pictures of the app's numerous screens. I do not consider myself any kind of artist so this part of the development took me longer, and required more effort to get myself to actually do it. Due to the fact that I do not really enjoy drawing, this part of the project really required a mental effort on my part to stay on task, and to continue drawing. This perseverance in the face of my own lack of motivation was my biggest success during this semester. I believe that the interface designs that I drew really could work as an easy to use, and understand interface. Thanks to this part of the development process I no longer hold drawing in such a disregard in my head, and towards the end I actually enjoyed the process of thinking about how the app would work and putting those thoughts to paper so I could see my thoughts in reality.

On the other side of that coin I was a little disappointed in how far into the development process I actually got. I do understand that to finish an entire mobile application it would take more time and effort than I could spend as a busy college student. However because of this understanding I think that my biggest failure during this semester was actually my attempts at designing a database for the application. Until late into the semester when we began to use the MAMP program. For me seeing how the database would be organized after the tables were created really seemed to make it click. Up until that point I was very confused about how the tables would relate to each other and how those relationships would actually form a working database. When I pick this project back up, I plan on reading and watching many more tutorials on database design in order to give myself the best chance of creating a good working database.

As this semester progressed I learned about mobile app development. This incorporated learning about all the software options that I could use during the development process. The stuff I learned about absolutely makes me feel more educated compared to when I entered the class room at the beginning of the semester. I also feel more enlightened after completing this semester. During the classes where we would do a little more talking than work I always am interested in hearing the opinions of others. Getting to see issues from multiple perspectives really opens up a person to have a better more enlightened view of the issue. This also serves as a good reminder that other people can approach and solve issues in ways that I would not necessarily see. Being more enlightened to more than just learning new things. To be truly enlightened you need to apply the new things to learned in ways that benefit yourself or others. With this definition in mind I believe that I truly became more enlightened over this semester because of the way I was applying the things I was seeing and hearing in class.

The activities we did during this semester definitely contributed to having a better grasp on what I would possibly want to do with my life in the near and distant future. During this semester I had to apply for lots and lots of internships. I was applying to many many internships that fell into a wide range of fields. I more or less applied to any internship that could fall under one of the three sectors that I am currently taking classes for: environmental, biotechnology, and information knowledge management. After all the applications were in and I started to hear back from the internships I had been in the course for a majority of the semester. I ended up accepting an offer for Booz Allen where I would be working a lot with databases and other computer software tools that we have discussed. I truly believe that if this class was less enjoyable than the classes for the other sectors I am in then I might not have taken that internship. As for the distant future I am still leaving that fairly open to my imagination. I have really enjoyed the mobile application development process up to the point we got to. I could see myself working on developing an app in the future, maybe not as a career but certainly

as a hobby or side project. This semester has also taught me about how I am as a learner as well. I have found that I am really much more of a visual hand on kind of learner. Being able to go through a process and make mistake that I can learn from really helped facilitate my learning.

This style of course work really worked for me. I liked the amount of freedom we were given, and the relaxed feeling in class. It was a class that really put the responsibility for how much you wanted to learn on yourself. I think because I was interested in learning about this subject that this style worked for me, but I knowing myself if I had found the topic boring I would have learned very little because I would have just not put in any effort. I was disappointed that we never got to finish the mobile application. I know that when we were coming up with app ideas that I was really excited to be actually making something, and when I thought I was actually going to finish I really felt like I would be achieving something because it would be something I could actually see.

If I were to change anything about this semester it would be to work on a project as a class. This might cause some people to loss interest if the app is about something that they don't care as much about, but I think doing it like this would allow for the class to get further into the development process. For example if the entire class was working on the same project, lets use the JMU sports app idea, then the entire class could help each other with interface, and database designs, because they would all be working on the same problems.

I feel as though I really do deserve an A in this class. I have completed, or attempted to the best of my ability to complete all the assignments, I have really put in work outside of class to complete the semester project, and I have done all right with attending as many of the classes as I could.

- What were your expectations coming into this class?

I did not know what to expect coming into this class at the beginning of this semester. I was assuming it to be similar to Dr. Radziwill's 341 class I took the semester prior. I also thought that it would be a project based class, and that we would build our programming abilities towards it throughout the semester. This is my first class I have taken with you, and I had previously heard rumors that you allow the students to choose their own grades. I also do not want to go into a programming field when I graduate from college, so my expectations were rather low. I was also not confident in my programming abilities, so I was worried about how much time I would have to invest in the class.

- What learning goals did you set for yourself?

Since I walked in without really knowing what to expect, I hadn't developed many learning goals early in the class. I did think later that I would maybe become somewhat familiar with some programming language at some point. For a class project, I wanted to blend a project from this class with what I was focusing on in ISAT 401 with Dr. Benzing. For that class, we spent a large portion studying different LIMS providers. I learned a little bit about sample tracking and thought that it would be interesting to do a project for 340 on creating an interphase that is used for tracking barcodes and samples. Also, I wanted to consider what apps were already present that kept inventory based on vicinity and how close different items were to where you wanted them. For instance, a nurse or pharmacist being able to track exactly how much of certain drugs they had available at any given time. Or this could be used for things as simple as packaging and transport for UPS. While programming is an important skill to have for many fields, I do not see myself pursuing a career in it. I did not view this class as my most important at the beginning of the year. This mindset led me to skipping a large portion of the class throughout the semester.

- How did your goals evolve over the course of the semester?

My poor attendance had a major role in the development of my goals over the course of the semester. I missed a large portion of classes on Fridays due to my capstone group not being able to meet any other times. Monday and Wednesday absences were just cases of me sleeping in, and generally being a lazy student. But as I started coming back to classes later in the semester, I began to get an understanding for how the programming industry is always changing, and how spending a large portion of the class learning one programming language could be an inefficient use of time. My goals for my project fell back-seat to other classes and graded assignments. I also thought my project was too difficult and fell behind at the beginning of the class, so by the time we had to present our possible clients and screen designs, I stopped coming to the class. Towards the end of the semester my goal became to and find the spine of this class, and identify what the most important things to take away were.

- In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

With regards to my class project, very little was done besides coming up with an idea. I do think I was successful in a way that I have not been in my other classes. I think I learned a lot about myself from this class. I learned that attendance and skipping class is a slippery slope. I learned I need to work on asking questions when I have them. I learned that I need incentives to work as well. I do think that I took away some important lessons from this class, and I have learned a new way to assess how to learn from

different classes. Writing this essay has led me to revisit other classes and try to find the most important messages that the professors have been trying to explain.

- In what areas do you feel you failed to achieve your goals?

I failed to achieve my goals, from a short-term aspect in that I could have shown up more to class. If I had truly wanted to see development of some sort of app creation, I would have been in lecture more, doing more research on my own, and most importantly not being afraid to talk to you after hours. I also believe I gave up on myself too early in the class.

- Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

I know now that I cannot allow for myself to fall behind and if I want to be a better and more active learner then I must ask questions. Even though I only have one semester left, I will use my resources more effectively as a student. In the future I will not let myself get scared of falling behind, and if I do miss class, then I will work outside of class to make up the material and get back on track. Due to the gradeless policy of objectives throughout the class, I felt that once I missed one assignment that there was no point moving on.

- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

I do feel more educated from this class, and I am thankful for it.

- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

This class has helped me learn more about myself this semester than any of my other classes. I felt remorseful about not going to class throughout the semester, but in return have learned more about myself. I know now that I really do want to focus my studies more on environment and not programming. While the lessons I learned from this class were not obtained in the traditional matter, what I did learn, I would not have from a normal class.

- How did this style of course work for you?

This style of course helped me as a person, but not necessarily as a student. By letting me pick my grade at the end, it reinforced my feelings towards not showing up in the middle of the semester. I think the traditional grading system would have made me feel like I accomplished more in the class. But at the same time, I would have had way more stress from this class being stacked with my others. I should have shown more discipline towards this class.

- If you were to take it again what would you recommend that I do it the same or differently?

I believe I would have learned more about programming if there were grades throughout the class. Even if the only grade was participation, I know I would have learned more with some mandatory grade blended in. But if this class was about growing as a student, I would change nothing. I believe that I

learned more about myself from this class than many of my past classes. I can learn how to program from a book and online tutorials. Like you have stated in class, learning a programming language once can be detrimental since many of the popular languages require re-learning every few months due to changes in the language.

- What grade would you like for me to report to the registrar for you, and why?

I would like for you to report an A to the registrar for me this semester because I need the bump to my GPA. Also, this is my last IKM class before I graduate.

What were your expectations coming into this class?

Coming into this course I expected a hectic and overly busy schedule with lots of busy work. I expected this because I find most classes to have unnecessary busy work that doesn't contribute to the learning of the material (the reason that I attend college) but focuses more on making you WORK for the grade, even if this work is completely unnecessary and only adds stress to your life. Don't get me wrong, work is definitely helpful in applying the information that you've learned, but filling out pages upon pages of busy work only wastes time that could be better spent elsewhere, adds stress, and complicates your schedule. I appreciate the fundamental philosophy of this class in that you are provided with what you need to succeed but not pushed into things that you do not want to do or are uninterested in.

What learning goals did you set for yourself?

I wanted to learn the basics of starting an application, and practice coding. Now I have a novice understanding of what needs to be done and also was provided with some tips and shortcuts on how to reach my end product more efficiently.

How did your goals evolve over the course of the semester?

At first I knew almost nothing about how to go about starting an application, and thinking that the idea for a mobile app that I presented in the beginning of the semester would be feasible with my skill level, experience, and time restraints. Now I realize that these things take a lot of time, effort, and knowledge to complete and there was no way in hell that I was going to get even close to finishing the app. Nevertheless I still was able to create blueprints for all of the different screens of my app, identify who would probably be using my app and the audience I would be targeting, and the basics of creating a database.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I feel successful with the creation of the idea of my application, which aims to help people discover new music, but in a way that has never been explored before. There are so many music applications out there but not one of them that I found compares your collection of songs/artists with other people that share similar interests, then fills in the gaps of what you might be missing.

I also feel successful in that I made a comprehensive blueprint for all the screens that I needed for my app. I was able to successfully create a layout that looked pleasing to the eyes and was functional and simple.

In what areas do you feel you failed to achieve your goals?

I definitely failed my original goal of completing a mobile application, but I realized that that was a lofty goal to begin with. With all my other classes and obligations and personal life competing for time, with only one semester to work with, I quickly found out that I would fail this goal.

Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

I've learned that undertaking the development of a complex application all by yourself is probably not the best idea. By including more people in your development team not only do you get the work done at a faster rate, but people can bounce ideas off of each other, people can specialize in certain areas for a better quality product, and you will have access to the other members' business connections, and have more creative mind power fueling the venture.

In the future I hope to be able to invent my own application, but still utilize other people's help along the way.

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I feel like I have a better grasp on the subject at hand, and am definitely more educated in that area. I don't feel any more enlightened than before this class, except for the realization of what it takes to complete an application.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

I'm an entrepreneur at heart, and have always dreamed of inventing something of my own, something new and different. That is my long term goal, because as of right now I'm broke and cannot afford the costs and time of starting a new business. This class has helped me take a step in the right direction though, and has assisted in giving me some of the tools I need to be able to invent something.

How did this style of course work for you?

I am a bit of a procrastinator, so deadlines help me to get things done. However, this style worked okay for me. I found that it helped with my schedule most of all because if there were no concrete deadlines for this class then I was able to be very flexible towards my other concrete deadlines in other areas of my life. If I was too busy for a few days I would simply move around the time allocated to this class to another day and make up for time missed when I had extra free time.

This style also helped me not to hate this class because you aren't forced to do anything that you have no interest in doing. You get to pick your own idea for an application and get to pick who you want to be on your team. This made it easier to spend time on this class because when you are working on it you are doing something that you are interested in.

If you were to take it again what would you recommend that I do it the same or differently?

I would recommend that you suggest that students pick an application that is somewhat simple. The idea that I picked was way over my head. I'd also recommend that students should be in

larger groups for their applications. This would help them to get further along in the process and get a larger fundamental understanding of the process of creating an app.

I did like how you identified helpful tools to expedite the process like Auth0 and explained them in class.

What grade would you like for me to report to the registrar for you, and why?

I would like for you to report an A for me. I feel like I deserve this based on the effort that I have put into understanding the material put forth in this course. I have an interest in this subject after I graduate and am concentrating in IKM so I will definitely put what I have learned here into use in the future and possibly into a career or future business venture.

Final Reflection:

What were your expectations coming into this class?

My expectation was to learn the syntax and logic of a new programming language. I also expected to create a functional code to bridge the gap between solar passionate citizen and their corresponding district representatives. (input = zip code, output = email of district representative)

What learning goals did you set for yourself?

I set a goal to finish: a codecademy course, DBMS course, Explore CMS plug-ins, and write a unique code that could store an user zip code and output a district representative email.

How did your goals evolve over the course of the semester?

I found myself getting overwhelmed with material that I could learn. At first, It was hard to know where to start. I wasn't sure where to write my code and how to test it. It took me a month to download MAMP and sublime text editor to make this happen. In the month of not having this software I learned about relational databases and how to use plugins on joomla to achieve functional tools.

After experiencing the limitations, I sought out to learn to create a plugin. Before doing this I decided to learn the basic syntax of PHP through taking a codecademy course. I chose PHP because I wanted to eventually link to a MySQL database and utilize the DBMS relations that I previously learned. In summary the goal of learning increased over time, and the goal of creating a working code/plug-in became less complex.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I feel successful through being able to read and follow PHP, MySQL, and a bit of HTML. Evidence of this is: a 100% completed PHP codecademy course, detailed notes on DBMS, and a basic plug-in that can be interacted with through my localhost.

Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

The main take away is that learning curves are to be planned for, and that learning takes longer than what I initially accounted for.

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Yes, I bought a laptop. This class made me accept/showed me that a laptop is a functional tool. I feel empowered and even have more social mobility through making this change. I also feel new possibilities available to me. The internet is a frontier for connectedness and wealth, and I am now curious how to leverage this frontier throughout my life.

Taking into account that in ISAT 252 I learned Python and wrote code to complete simple tasks, but didn't go through the steps of creating an environment to write and test code myself. Therefore, it was a fundamental part to this coding thing to experience.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

I learned about my own misconceptions of my own learning. When it comes to code, learning takes longer than what I initially accounted for. Other than this, I have a vague sense of new possibilities that I can pursue throughout my life. For the last two years the plan has been to rock climb, surf, and snowboard while doing some sort of entrepreneurial venture from the comfort from a van. Therefore, I feel inspired to learn more and more about PHP, MySQL, HTML, among other languages. I can see programming used as a personal organizational tool, and even some sort of a portion of a service.

How did this style of course work for you?

I enjoyed this course because it allowed me act freely and experience my own agency in relation to my excitement for programing. Initially I was going through the motions of setting time aside to be productive for this course (felt like a chore), but it then turned into me researching and creating once I got excited about the material and final project. Therefore, the lack of enforcement/direct penalty of structure allowed me to genuinely get excited towards programing in my own way. (However, this only occurred because I was enrolled in this course. Therefore, it did contribute to me exploring programing even though I was involved in the class community.)

If you were to take it again what would you recommend that I do it the same or differently?

This could just be me, but stress how to start programming. Have some sort of text editor, and local host, or whatever you would recommend. I was too stubborn to ask, and then had to figure out the logistics of this by myself and did not know where to initially look. (or even what language to use to research). Other than that keep the jarring information of automation and peace. (Among other ‘gems’ I probably missed out on). I am happy with what I learned this semester through your course.

What grade would you like for me to report to the registrar for you, and why?

A+

1. I ought to ask for that.
2. I'm stoked.
3. The evidence of what I have accomplished: Mostly learning, but creating a code that will accomplish the function I set out to achieve.

(input = zip code, output = email of district representative)

Grant Fabian

At the beginning of the semester, my goals for this class were to ascertain the basic concepts of software development and pick up software development as a scholarly interest. The goals that I set for myself were to learn as much as I possibly could about software development and be able to know what I'm doing if ever confronted with a problem pertaining to software development. Over the semester, my goals became much less involved with this course since IKM is not my concentration. My goals quickly switched gears to the environmental sector and working on my capstone project. In all honesty, I was successful with my goals in the environmental sector, but was very unsuccessful with my goals for software development. If I have learned anything from my failures, it would be that I have trained myself to not let this type of failure of goals happen again. Even though my goals went unachieved, I do feel enlightened due to hard work and study in other scholarly topics. My endeavors of this semester have really been very helpful with assisting me in finding my desired career path and my successes in my other endeavors have proven to me that I have what it takes to be an environmental engineer. This style of course did not work out for me since there was little reinforcement to learn the material and also since the material was not really lectured to the class. I personally would recommend to change the format from pick your own grade to the points systems, that way more people would be motivated to learn the material and would feel like the material is important. Although my software development goals were not achieved, I would like to have an A reported to the registrar because of my successes with other ISAT endeavors and because of my honesty.

Corie Lambright
ISAT 340
Dr. Benton
12/13/2016

End of Semester Narrative

- What were your expectations coming into this class?

I had a pretty good idea as to what we would be doing in this class at the beginning of the semester. I expected it to be a class with a laid back atmosphere that allowed me to explore my interest freely and apply them to programming. I expected to expand my knowledge and appreciation for programming, all the while conjuring up ideas on how I could use emerging themes in programming (i.e. mental health) to leave a positive impact on society.

- What learning goals did you set for yourself?

In the beginning I had this idea that I should apply the objectives of this course to my senior capstone project. I thought that by showing potential employers I could integrate scientific data collection into app development, I would gain an advantage over applicants.

- How did your goals evolve over the course of the semester?

Eventually however I realized that sometimes less is more. I had many ideas for an app after I had this realization and was able to narrow it down once I really thought about what type of app I would want to see in the app store. Taking this problem solving approach for developing an idea ended up being really beneficial for me in the long run. So, as the semester went on I began to plan my app. My overall goal became to have a plan of attack for developing this app and to acquire all the tools necessary for doing so. I kept my goals modest because, for one, I knew that I most likely would not have a finished product by the end of the semester, and secondly, I knew that I was going to have to put in a lot of time and effort into my other classes and would, unfortunately, have to put this class lower on my priority list.

- In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I really got a lot out of creating user profiles. I based some of the aspects of my characters off of things I experience every day. Also, even though it was recommended to shy away from using balsamiq, I really

enjoyed working with it and have a rough prototype of my app that I can refer to if I ever proceed with its development. I'm pretty pleased with myself about it actually. Another thing I was able to interact with was creating data bases for users and their passwords and usernames.

- In what areas do you feel you failed to achieve your goals?

I fell really behind after midterms and my progress on my app kind of came to a halt. Yet again I failed to manage my time wisely. There were so many other things I would have liked to accomplish in the class.

- Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

Time management has always been a problem for me in college. I don't know what caused me to lose my love of learning, but somewhere along the way I lost my passion for knowledge and developed many, many bad habits and avoidant behaviors. At this point it is painful to do any type of work for school. My brain's tolerance for this pain is very little. However, I have to stop looking at what I have yet to overcome. I must not look back in time and relive my regrets over and over again. I also must not live in the future and worry and be fearful about all things I still have to do. In these respects, time enslaves us. It is an arbitrary concept our society has learned to live by, and it's obvious that people are suffering from this loss of being able to live in the moment. If you live in the moment time does not exist. I don't know if I will be able to ever master time management in my college career. At this point all I can do is keep trying and stop thinking about what I didn't do or what I have to do, and just do it as I live moment to moment, because in the moment your brain shuts off and your soul, which lives in your heart, knows what to do. It will guide you, and all you have to do is stop and listen.

- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

It's funny you mention enlightenment. Somehow I stumbled upon a group of people that do not think like everyone else, and I have never felt more accepted and unconditionally loved. These people are in my concentration classes (my concentration is environment btw). By looking at us one might say, "oh these damn millennial, tree hugging hippies...", but we are so much more than that. The work we are doing is more profound than one could imagine. At least half of my new friends in my classes attend a group called, sacred circle, lead by Guru Mahadevi. It is like the energy

in that house pulled me in. I can't explain. All I can tell you is that kids just seem to be flooding in randomly. Every week there have been more and more people coming to experience and learn how to achieve peace of mind and wholeness. There were 20 people at Mahadevi's house last week. According to her we are in the midst of a great awakening, and I totally agree. A few paragraphs cannot adequately express the awakening I have experienced or my journey towards enlightenment. I am still in the beginning stages, but this is something I will be investing in for the rest of my life. However, to answer your question, yes I am more educated and enlightened. And not just in literal terms. This class played a major role in my quest for inner peace. To me, that is more important than any assignment or grade could ever be.

- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

I still attend therapy. I am down to going about once a month and I often overlook how far I have come. It breaks my heart that not everyone can attend therapy and get the help they need and deserve. So, therapy and attending sacred circle has been life changing this semester. My biggest take away has been that I am made up of two entities. My ego and my true intrinsic self, or my soul. I lost my soul. School clouded it and my forefront self took over. Again this concept is deep and profound, and I cannot explain in a few sentences.

I think it is important though to talk about my purpose in life. I know I said not to live in the future, but it is necessary in this institution. I will not be applying for jobs. I refuse to join the rat race. I will not wear a suit or suck up to bosses and clients. I will not sell out. I do not need money. I do not want money. I have no respect for money. Like time, it has enslaved humanity. The fact that we have to pay to live on a planet we were born on is absolutely absurd. This ancient, Babylonian concept is the worst thing to happen in all of man kind's history. After this semester I know how to grow food. I know how to live on this planet via my own devices. It is my job and my destiny to awaken the public. I must share my knowledge of enlightenment and small scale agriculture. I must grow healthy food for my community. No child or adult should go to bed without having eaten a fruit or vegetable that day. THERE IS NO EXCUSE. Big agribusinesses and conglomerates must crumble and fall. My job and life calling is to be a civil servant and community leader. I will shatter paradigms and glass ceilings. I know that I am already the person I want to be. It lives within my soul. I can do anything and make a change in the world. It is time to set the people

free from outdated mentalities and oppressive governments.

- How did this style of course work for you?

I was a little uncomfortable with this style of course last semester, but this semester, it has been a blessing. It aided my life journey and perfectly coincided with my mentality. I feel silly for being overwhelmed by everything that goes into app building because technology is changing so fast that conventional methods will probably become obsolete here shortly. That is good news. The idea of web based apps completely blew my mind. Of course it will take away from the authenticity of knowing how to build an app from scratch, but now I honestly think I will be churning out apps in my spare time (after school of course). I think you should really push this method for your future classes.

What grade would you like for me to report to the registrar for you, and why?

I always struggle with the ethics of this question. I see this class as being more seminar style, rather than one with enforced objectives and deadlines. In my opinion developing a better understanding and appreciation for a subject through self-exploration and good mentoring is more valuable than being told what to do and when to do it. I don't have much to show for my time in this class, but what I lack in tangible results, I make up for in emotional and spiritual growth. I must say I feel like I am taking advantage of the opportunity, however I would like a 90%. Being able to graduate with at least a 2.0 will not only make me feel better, but it would probably be beneficial when I do decide to become employed.

Before anyone can tackle the problems that plague the world, they must first tackle the problems that lie within themselves. We are responsible for ourselves and we must learn to understand ourselves because our behaviors directly reflect our values and allow others to see who we truly are. While individual change is often slow, and presents us with many challenges, it is a necessary first step in making a change the effects people on a larger scale. ISAT is all about making practical use of applied sciences and technology from a multiple disciplinary, problem-oriented perspective. What I have found to be the most important problem-solving method that ISAT teaches is the utilization of a Systems Thinking approach. Systems Thinking helps improve the overall sustainability of a solution by fully assessing all of the individual elements that comprise a system and determining how they are interconnected. People commonly fail to see how essential non-technical skills and knowledge are to helping solve complex, multidisciplinary problems. ISAT graduates are capable of being the bridge between specialized members of multidisciplinary teams by knowing how to communicate effectively on a wide variety of social, scientific and technical matters as well as across a variety of different fields.

Coming into this class I was optimistic and full of excitement – hopeful to go through the process of learning how to develop a mobile application. In addition to this I was hoping to be introduced to databases and how to actually code using something like Swift. Most of all however, I hoped that we would pick an idea, determine if it was feasible to create, design/model the idea on paper, and then implement the application onto an OS. At the very least I wanted to have a more solid conceptual understanding of how my application would work and how its components were interconnected with one another. In a sense what I mean by this is that I did not expect to actually develop my application this semester – I simply wanted to lay the foundation for me to be able to pick up where I left off when I have more free time. I knew going into this semester I was going to have a heavy course load and as time progressed I saw myself being able to devote less and less time to this class unfortunately. As the semester progressed my attendance and participation in class did drop significantly due to issues that I was dealing with outside of class. Unfortunately, as a result my goals in this class also shifted away from the actual development of an application to simply building the framework by making things such as concept maps, mock-ups, database schemas, and product personas.

I believe that I was partially successful in achieving the goals that I originally set out to accomplish. While I did bring my idea to full fruition I did however make some significant progress towards my long-term goal of creating the application. One of my biggest successes this semester regarding this project was going around and asking people's opinions on it and what they would like to see included with it. I personally believe the social context behind an idea is honestly as important as the idea itself. If people do not like something, then they are not going to use it – it's as simple as that. By going out of my way to survey a wide variety of different users, something my personas helped me identify, I was able to get a clearer sense of the

minimum requirements that people wanted in regards to this application as well as if it solves the problem I set out to tackle. Having all of this user input allowed me to mold my application around a human-centered design which is going to save me countless hours in the future when it comes to not having to make unnecessary prototypes. All of these requirements were compiled into my mock-ups which turned out pretty well. From this I developed my database schema which allowed me to visualize the data exchange between my application and the client. In regards to my failures in achieving my goals – I believe that while I did not complete my application, the effort I put into making this project human-centered will pay off in the long run. My failures honestly stem from forces that were outside of my control this semester and the forces had a ripple effect on not just this class. In the future I plan to communicate more efficiently with my professors about what is going on outside of the classroom and any issues that I may be having. I attempted doing so in this class but do not believe I did the best job I could have done. In regards to failures regarding the actual project itself – I do not believe there was any failure here because I made forward progress and in my mind some progress is better than no progress. I plan to continue work on my application next semester and hopefully will have a working prototype by the summer.

After this semester I can confidently say that I feel more educated and enlightened about my major, my future, and most importantly myself. I did a lot of journaling this semester and it is truly fascinating seeing the character progression. This was an extremely difficult semester for me where I was facing adversity around every corner and it seemed like the end would never come however through persistence I was able to persevere. I stretched my physical and mental limits and learned a lot about myself in the process, especially regarding who I am as a person and what my ideal self. One of my core values is maintaining my personal health, and after reflecting upon this, I concluded that my behaviors do not accurately represent my values. The reflection on myself allowed me to notice that in comparison to my physical, emotional, and intellectual sustainability, my philosophical and social sustainability were out of harmony. The importance of keeping the different aspects of individual sustainability in harmony is because they are a system and an imbalance in one aspect will have a domino effect on the others. I can assume that my philosophical sustainability is imbalanced because I honestly did not spend much, if any, time pondering on what my core beliefs were, or personal code of ethics. The personal reflections in the past have not only helped me identify where my imbalances are, but they have also helped me tackle the problems head on. Having focused reflections on my beliefs, and values allowed me to see what kind of person I am and compare it to what kind of person I want to be, and from there make a plan to change myself step by step. By simply spending some time before bed each night and reflecting on these topics I have been able to hold myself accountable and ensure the integrity of my values. Social sustainability is something that I believe everyone could use improvement on because we are a society that has been consumed by technology. The trend that I have observed is that technological innovation and social media has connected us to one another, but at the same time it has also inadvertently isolated us. This isolation is causing us to slowly lose the social skills necessary to be productive members of society. Using a time log I was able to observe the time I spend each day plugged into

technology and from there make a plan to cut back my technology use. The obstacles that stood in my way when establishing a plan to cut back technology use were the instances that technology was unavoidable such as in the classroom, but even with those included I was able to make a considerable reduction in my technology usage. Instead of simply making a plan for this paper and forgetting about it, I decided to take the initiative and go ahead and implement the changes into my day-to-day life and so far I have had great success doing so and plan to continue improving myself.

There are a handful of principles, values, and behaviors that I follow that guide me through my life and help me make decisions that will reflect my beliefs as well as positively impact me. The first is to always speak with integrity and to only say what I mean because as said by Ghandi, "Your beliefs become your thoughts, Your thoughts become your words, Your words become your actions, Your actions become your habits, Your habits become your values, Your values become your destiny." Second is to always try my best because it is better to fail at something and look back realizing you gave it your all rather than to fail at something and know you could have done more. Third is to never take anything too personally because what others say about you is a reflection of their reality, not mine, and if I am above that it eliminates unnecessary stress and suffering. Finally, be present, in the moment and to create my own destiny because only when I stop letting other people dictate my life am I able to say that I am truly living my life. While I would love to be able to say that my behaviors directly reflect my values I am unable to whole-heartedly do so, and I believe you would be hard pressed to find someone who could honestly say so. I believe this is due to the monumental technological innovations in recent years resulting in the present becoming an age of talkers instead of doers. An example of how my behaviors stray from my values is how I value selflessness, but have shown self-centered tendencies in my decision making process. During group projects I would only volunteer to do extra work because my grade was dependent on it, and not for the good of the group or because it was the right thing to do. After reflecting upon my actions and thinking about whether I had shown integrity via my behaviors I came to the conclusion that often times I act based on my personal interests and not out of genuine kindness. However, throughout the semester I have been able to amend my behaviors through personal reflections and begin the process of individual change. While I have faced numerous roadblocks along the way, my will to become a better person and enhance my ideal self through my values and behaviors has prevailed and as a result has allowed me to strengthen my integrity.

This style course worked extremely well for me and I cannot express how grateful I am that you offered the course in this fashion. If I were to take it again I would recommend that you try having a little bit more of a defined schedule or at least adhering to it a little more. Other than that I felt that the class was very well structured and enjoyable. I would like for you to report an "A" to the registrar's office simply because I desperately need the GPA boost after this semester seeing as this will be my only A for the first time ever. I've come to accept that grades really aren't that important but it still is a good feeling when you see at least one.

ISAT 340 End of Semester Reflection

Nathan Sohn

- What were your expectations coming into this class?
 - I didn't really know what to expect from this class. The only classroom experience specifically dedicated to computers I had prior to this class was a summer crash course on C++ and Javascript that I took in high school.
- What learning goals did you set for yourself?
 - I know that computer technology is an integral part of our society. It is used in every industry and its role in our everyday lives is only going to increase as time passes. Let's use the restaurant industry as an example. Prior to computer technology, restaurants used paper tickets and bookkeeping in order to keep track of things like customer orders and inventory. But now with the help of computer technology, the restaurant industry has evolved to using POS system technology to keep records and streamline the running of the restaurant. This is just one of many examples of how technology will continue to permeate all areas of society.
 - With this in mind, I realized the advantage of developing a software knowledge background. Software is seemed like such a broad term to me. So my first goal was to gain a basic understanding of what software is, and how people use it. My second goal was to learn about how software is made. What are the steps in the process and how do you complete them? What are the skills needed for software development? Do you need software to develop other software, and how do I use it? My last goal of the semester was to develop, or at least start to develop a software of my choice. I intended the goal of developing my own software to be a learning mechanism through which I could accomplish all my other goals.
- How did your goals evolve over the course of the semester?
 - At the beginning of the semester, the class was really focused on my goal of developing my software for the course project. For a while my main goal was just to figure out what I wanted to do for my course project. I found it a bit hard at first trying to come up with a unique software idea because there is already so much out there. I figured the best route to take would be to find something that I have a genuine interest in, and see if there are any problems that could be solved with an application. Snowboarding is a favorite hobby of mine, so I looked to that for inspiration. I finally settled on an trying to develop an application where the main function would be to keep track of group of people on a mountain. This sprouted from the realization that getting separated from my friends while on the mountain is a common occurrence, which could be solved if there was a way to used phone GPS to track everybody at once.
 - As I continued through the process of starting to develop this software, I realized that developing software requires so much more than coding skill. There are numerous steps that you have to go through such as problem statement, system analysis, scenarios, screen mockups, etc; before you

even get to the coding part. In order to start coding for the software, you first have to have a planned roadmap of what the software is going to look like, how it is going to work, and what you are going to do with it.

- Another way my goals evolved over the semester was the fact that we started shifting from focusing on the semester project to focusing on databases. I personally liked this because I felt that having a background in databases would be useful in the future and a great add-on to my resume. As I plan to go into the science field after college I know that I am going to be working with raw data all the time. Learning how to manipulate information to create a useful database will be an invaluable skillset.
- In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.
 - One way in which I was successful was that after this class I definitely gained a basic understanding of what software is and its role in society. I also learned about the process of software development and how intricate it is. You can't just state a problem and code a software solution in a day or two. Developing software to address specific problems requires careful thought and lots of TIME. If you don't spend the proper time during the initial planning stages of software development such as system analysis or screen mockups, you will run into problems when it comes time to do that actual coding part of the software.
 - If I could compare developing software to one thing, it would be building a new house. The planning stages building are equally as important as the actual physical work of building the new house. You have to make sure you have a proper foundation to build on, the blueprints for the layout, plumbing, and electrical are all done beforehand, proper permits are acquired, etc.
 - I cannot emphasize enough what the importance of the initial planning process of software development. This was one of the most important takeaways/successes I had from this class because I can apply the same principles to other areas of my life.
 - Another success that I had in the class was learning about databases. Once we started covering the subject in class I started to realize how important they are to everyday life. For example, two databases that I work with everyday are canvas for school and the POS system software for my restaurant.
 - I learned that a database is any flexible structure used for organizing data. In simple terms, the main goal of a database is for you to be able to ask questions and get meaningful answers while reducing redundancy. In class we learned about the two types of databases: SQL and non-SQL (we focused on learning about the SQL databases). Other basic aspects of databases that we learned about were structure, schema, entities, relationships, and how all of these can be organized depending on the goal you are trying to achieve.
- In what areas do you feel you failed to achieve your goals?

- The main area where I failed to achieve my goal was my semester project. This is only because of the fact that I don't have an actual deliverable application at the end of the semester. This is not to say I did not gain anything from the semester project though. Quite the contrary actually. The fact that I did not come up with a fully functioning piece of software taught me that developing even simple software takes a long time. It is a multi-step process that can't be done overnight. Now if I am tasked with developing a software program in the future, I know what to expect.
- Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.
 - One thing that I learned from my failure to complete the semester project is that I need to improve my time management skills. This class was very open ended, which I liked because it allowed me to take the class in the direction I chose. But honestly the lack of structure also translated into me getting less work done in terms of deliverables for my semester project. Through this I have learned that I need to set specific goals with dates if I am to get things accomplished in a timely manner. The main take away from my failure is that I need structure and organization in order to succeed.
- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?
 - I definitely feel more educated after taking this class. Prior to this semester, I had little to no knowledge about software development and databases. After a semester of taking this class, I know what makes up a database and the basic steps for software development.
- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?
 - My activities this semester have given me a better knowledge of myself. I learned that with such a big open-ended project I need to set specific goals and dates to get things accomplished. I learned that having structure in what I am doing is crucial to my success. As a naturally unorganized person, it is imperative for me to keep improving on this area of my life.
 - In terms of what I want to do in the future, this class sort of changed my mind. I used to think that sitting behind a computer all day was definitely something I did not want to do for a living. I'm not saying I had a complete turn around and now love software development and want to make it into a career. But I will say that this class made me realize that working mainly with computers is not that bad. As long as you are working on something you are passionate about or have a vested interest in, the work is fulfilling. For example, if I were developing a software that was mainly for accounting purposes (I have no interest in accounting), the work would not be as interesting or fulfilling to me. But if I am working on a software that deals with snowboarding which I have a passion for, my work becomes

more fulfilling and I can enjoy the process more because I have a vested interest in my works success as it will impact me personally in what I do for a hobby.

- How did this style of course work for you?
 - I enjoyed the style of this course. It was very low-stress which was beneficial because at first I was skeptical of how I was going to do in my first software class. But the low-stress environment helped me look at software development as an area of knowledge that I can learn about and use in my future career as well as something useful I can do in my free time, as opposed to just another class I have to take to fill my graduation requirements.
 - I like the way lectures were conducted. I felt that there was a good progression of what to teach us about databases and in what order. I especially liked the method of using a course project as a tool for teaching us the basics of software development. By actually having to develop the software we had to learn how to do each step of the process (problem statement, system analysis, scenarios, screen mockups, etc.). Also, the fact that what we did for the semester project was our own choice, made learning about the development process more fun because it involved something we actually cared about.
- If you were to take it again what would you recommend that I do it the same or differently?
 - I would definitely recommend doing the class the same. I feel that I was able to walk away with a much better understanding of database and software development by taking it in a low stress and enjoyable class environment. It is beneficial to have this introductory course conducted like this, because I enjoyed my time in the classroom, it drew me into the field of software development instead of pushing me away from it. This is exactly what you want from an introductory class. Heavy course load should be reserved for the more advanced classes where the students are actually planning on sectoring in Information Knowledge Management.
- What grade would you like for me to report to the registrar for you, and why?
 - I would like for you to report an B. If I am being honest with myself, I don't think I deserve an A because I did not have a completed project by the end of the semester. But I still think I accomplished a lot in terms of my learning goals for the semester. I learned what constitutes software and what goes into its development in terms of analysis and design. I got hands-on experience at trying to create an application as a solution to a real world problem. I also learned not only basic knowledge of databases, their purpose, how to create one, but also how much more there is to learn about software and databases. In short, this class gave me new knowledge about the world of database and software development, and left me wanting to learn more.

What were your expectations coming into this class?

Before even entering the class room on the first day I had a few expectations when it came to ISAT 340. When I first signed up for ISAT 340 I wanted to just fill out my requirements for my ISAT strategic sector of Information & Knowledge Management. My first expectations for the class was similar to the ones that I had for most classes I have taken so far besides your ISAT 252 class I took last semester. I expect the norm for this class even though I had your class last year, because I was unsure if you were going to keep the same format for a 300 level class. I knew that this was a three credit class and we would meet three times a week in the morning, I was expected a short quiz or test after we learned a major component of development, or past milestones in the field. Even though I learned the basic skeleton of programming last year as we learned it can all change very rapidly and we need to be very resilient when it comes to creating an application or web page. The work that I expected to do in this class was tedious code writing and doing a new example after example of developing simple/common apps with each one getting more and more complex until we would have an open ended final project that is to create our own app. The main goal that I expected from this class was that by the end of the semester there would be an app that we either fully developed or were in the developing process. Even though I knew your class was different than most others, I always assumed what is to be considered the normal expectations. My one expectation that was not with my usual set is that this class would be similar to the style of the ISAT 252 class, where the class would be a comfortable learning environment that is low stress. All my expectations coming into this class are ones that the school systems have introduced us to from a young age.

What learning goals did you set for yourself?

The learning goals I set for myself over the course of the class were very simple and in my opinion extremely obtainable. My goals were truly derived after about the third week of classes. During the first few weeks you instructed us to think about an application idea and that we would work on it for the remainder of the semester. After that I had a moment of panic because I have never thought of anything relating to apps ever before and had absolutely no idea of what to do. I was listening to everyone who already had an idea and I felt so behind because there was no problem I currently had that would make my life or other lives better. After I hopped on the JMU Sports App with Austin and Sara I felt a lot calmer and could now focus on setting goals relating to the that App. I set learning goals so I would not be stressed out during the semester so I could mark my progress and feel like I was on tract. The goal I truly had was to learn what really makes up an app. When I was doing some research I found out that apps could be extremely simple and running in a day or that they could takes months or even years to fully develop. After learning this I set very small goals like learning how to make screen designs by hand and using various websites, learning what needs to be in an app versus what could be left out, and learning different frameworks to assist in app development.

How did your goals evolve over the course of the semester?

The evolution of my goals during the semester remained the same for the most part. The goals only evolved to only harder more sensitive tests were given that required a lot more time and effort to complete. The goals progressed for this class evolved past the class portion, and I mean this by as I researched questions for current goal I came across a lot more information that interested me. Once you returned from your trip and told us about all of the new technology of Virtual Reality, HoloLens, and augmented reality I went back home and researched some of the devices you mentioned as well as some apps that were already developed. It made extremely curious and really wanted to buy a headset myself until I saw how much they were and realized I needed a whole new set up to run it.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

The way success is defined to me is not very normal to many others. How I few personal success is that there was a success in every failure, which described more in the question below this. I felt the most success in this class after we finished our screen designs for the app. When I saw those on paper and on the computer screen I was just so filled with accomplishment and really felt like I was doing something. Another time I felt pretty successful was when I was able to explain to my parents what I was doing in class to where they generally understood what I was talking about. Also I was having a conversation with a friend who is in the Telecomm concentration and we discussed apps between the two of us.

In what areas do you feel you failed to achieve your goals?

With every goal I set no matter how small or simple it was I did my best to achieve them, but this is real life and sometimes one cannot achieve the goals set out and this stated to happen closer to the end of the semester. As the end of the semester grew closer in all my other classes I started getting assigned a lot of labs, tests, quizzes, and papers. This really took a toll on me for your class because I put this class on the back burners and had very little time to work on our group's app, and I knew my group members were in the same situation I was in. One of my group member completely fell off of the world it felt like, since there become so little communication with him and he stopped showing up for classes. When I tried starting the database for our app I thought I was doing it right until I realized it was completely wrong after you displayed in class on how it should be done. I failed at some of my goals since I did not achieve them, but I do not truly look at those instances as complete failures. I say this because I keep thinking of a quote my old math teacher had a poster of Thomas Edison in which he said "I have not failed. I've just found 10,000 ways that won't work." That quote has really stuck with me in the sense that I did not truly failed I just found a way not to set up a database.

Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

Without failing anything there is really no progression of learning. As said previously above I have failed at a few things in this class and in my other classes as well. This however does not stop me from learning and bettering myself. Every new class I have taken here at James Madison University I have had to figure out how to study and learn differently in each class since all of them have different requirement and learning objectives. The only way to address issues in dealing with failure to learn from them and try again. The issues with the failures in this class is just spending more time looking over other people's tutorials and asking questions in open forums to get help from someone that knows more than you do. It makes you look at yourself and say are you going to let your own pride get in the way of developing something that could truly help yourself and others.

JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

This is the last question I had to respond to and that is because it is so broad. I do feel more educated in the world of app development since I started knowing absolutely nothing. The only thing I knew about app development before starting this class was that it must be a very long and hard process where it takes a team of people months of work. I learned a lot over this short semester and that is why I chose IKM as one of my sector classes because I am interested in learning more. I really do not feel as if I was enlightened for say but more informed to the world of app development. I agree in the way that we met the JMU mission statement by saying I felt like I got a lot out of the class to the point that I want to continue my studies in it, but to make it part of my productive life is a part I cannot answer at the present moment.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

The activities that I have done this semester relating to this class have contributed to knowing myself better and gave me slightly more of a direction of where I am going in the future. Over the past semester I have done a fair amount of research into what goes into app development as well as watched all of those videos you have sent us about databases and how to create them. Personally I am not a programmer, since ISAT 252 I realized that. I can get about the just of what is going on but I am nowhere near the level of some of my colleagues who can program and develop almost as if it is their native language. I really enjoyed the making of the screen designs and the constructing of what our app should look like, but the back end stuff with the coding is just not really for me. I am able to communicate with the people who do understand and are going forward with the IKM and Telecom route of their ISAT career and would be able to tell them what I am truly looking for in the app I want to help develop with their help.

How did this style of course work for you?

This class was a different style than any other class I have ever taken in my college career. The style was very welcoming and you (Dr. Benton) were very easy to communicate with. You gave good feedback in the way that you did not just give us a straight answer every time we got stuck or on a new topic. You related the question to what did previously in the class and got us to think of possible solutions. You sometimes even left the class with three or four questions for us to answer and then come back with the overall solution. You did not hold our hand the entire time and just spoon feed us the solutions and give us praise over a small accomplishment. The whole no truly defined tests and quizzes I enjoyed, this is just personal but I have test anxiety and always freeze up when it comes to those in all of my classes. I really enjoyed when we put up each other's screen designs and discussed the pros and cons as a class, and then we discussed how to fix the mistakes we saw or how to simply something that is too complicated. I also really enjoyed the day that we spend in the X-labs where we were able to play with the different virtual reality headsets, it was a nice break from the stress and high intensity of my other classes.

If you were to take it again what would you recommend that I do it the same or differently?

If I were to take this course again I would have a few recommendations. My first recommendation is grouping us into teams during class hours to work on our apps. You were always talking about how much programming is a group effort and in class I felt much excluded from my group. There were times where I and my neighbors quickly talked and then that was it. I felt like this class had very little discussion between us, the students, and it felt like for most of the semester you were just lecturing to the ones that were actively listening. One of my favorite aspects of the class and we did not do this too often was when we did a quick 5-10 minutes of silent meditation, that honestly made the rest of my day so much better and helped me focus in not only your class but all my other classes too. I know something like that takes up valuable time, but even just the 5 minutes would be so beneficial. There were times that I wished there was a little structure on what to do outside of class besides hey google for the answer, even if it worked some time often I had more questions than answers at the end.

What grade would you like for me to report to the registrar for you, and why?

The grade I feel like a truly deserve in this class is the one that I also wish for you to report to the registrar and that would be a grade of an A. I was attentive every class and tried to miss as few as possible, but there were times that I was sick and could not attended for the greater health of the community. During class time I tried to answer the questions you put out as best to my ability. There were times I answered and was completely wrong but we worked with what I started and got to the true solution. I spent a good amount of time outside of class watching tutorials and reading blogs that dealt with app development and really saw the connections with what we learned in class. I was able to describe how an app and database to my sister who uses her smart phone for only three apps Facebook, Pinterest, and Online Shopping.

Thank you for a great year I learned a lot! Have a great and safe winter break, and I hope to see you around during spring semester.

Jeb Benedetti

12/14/16

ISAT 340

- What were your expectations coming into this class?
My expectations coming into the class were that I would gain a basic understanding of what it takes to develop software in today's world, along with learning what some of the best coding languages are.
- What learning goals did you set for yourself?
My initial learning goals involved learning how to create an app, learning what tools to use, and what languages are the best.
- How did your goals evolve over the course of the semester?
My goals evolved in that towards the end of the class, I shifted my focus onto just learning what it takes to construct a proper app. I have had some exposure to app development in the past, but it was very on the fly type work so I never fully gained an appreciation for the inner workings of an app.
- In what ways, did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.
In regards to the goal above, I do not have anything physical to show my understanding of the basic infrastructure of apps, but I do have the app that I developed over the summer as an example of my first journey into the app development world. While it was incomplete, I started with essentially nothing and made significant progress. Using the knowledge I learned in this class, I feel that I could achieve more now than I could then. With some work, I feel I could achieve a fully functioning app.
- In what areas, do you feel you failed to achieve your goals?
The most obvious indicator of failure, to me, is that I do not have a working framework for a new app. While I did not expect to fully complete an app in one semester, I thought that I could get a draft up and potentially go from there. However I admit that this class did get pushed onto the backburner throughout the semester so I do not have anything physical to show for my efforts. This is more a reflection of my priorities this semester and unfortunately, I often did not have time for recreational projects like this would have been.
- Please reflect on what you think you've learned from your failures, and what, if any, plans you have, to address those issues in the future.
While the above failures are true, I do not think I wasted time in this class. I failed to produce anything physical, but I did gain an understanding and appreciation for various elements of coding. Therefore, to correct my above failures, I would simply have to put more time aside to make something like that happen. My semester was hectic and sometimes I just did not have time for this class. I would have enjoyed taking this class during a semester with a low workload so that I could devote the proper amount of time to it. So, in the future I would absolutely set aside more time for a personal project such as this.

- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

I do feel more educated on the course subject matter. Like I said above, I did not get to produce a physical product, but I did do research and learned a lot. I learned a lot about the diversity in the programming world and how the community often comes together to help each other solve issues. I had previously only been exposed to a couple of different languages, but upon further investigation, I learned the diversity at which you can program. It was a very eye-opening experience and it sometimes led to more questions rather than answers. But, overall, I do feel more knowledgeable on the subject, however slight.

- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

The activities of the semester have absolutely contributed to me knowing what I would like to do in the future. I have found myself to enjoy coding over the last couple of years and have pursued internships in the field. This class has only furthered my desire to work with computers in the future and potentially generate apps.

- How did this style of course work for you?

This was the first exposure I have ever had with this kind of teaching style. While I did enjoy not having the stress of additional classwork, I do think that I slacked off some. Since this class had no assignments, I found myself pushing it off. Especially since my schedule this semester was tough, however that may have been your goal. I do remember you making a point to say that you did not want to encourage more stress upon us and you accomplished that.

- If you were to take it again what would you recommend that I do it the same or differently?

If I were to retake this course I would recommend that maybe, instead of having graded assignments, you could try doing something like this where you sit down with every student and talk with them about the progress they have been making. That way, you can keep your no assignments policy and you can still be aware of how much effort is being put into the class. However, it would probably be a pain for you to schedule all of that so that idea may not work. However, other than that, I do not really think that the course should change.

- What grade would you like for me to report to the registrar for you, and why?

I would like you to report an A into the registrar. I know it is probably quite selfish of me to ask this of you since I have no physical results from this class, but I do think that I have gained valuable knowledge from this class. I know for sure that I have a greater appreciation for the subject now than I did at the beginning of the semester. Also, in my case specifically, I know that I have gained a valuable chance to work on something extremely fascinating in our capstone project. I think moving forward, that will be the greatest thing I got out of this class and I look forward to what opportunities that will bring me. Also, just because I do not have a physical app to show for the class does not mean that I put no effort into it. I did still learn and grow and technically I submitted every assignment in on time. That is my reasoning and I am sticking to it. All jokes aside, I truly enjoyed taking your class and I look forward to progressing in the future.

Brenna Ellison

ISAT 340

Final Reflection

12/12/16

Honestly, coming into this class I expected a lot of coding and maybe a few programming assignments. I was a little thrown off by the course name, “Software Development”. I knew what software was, but wasn’t sure how or what we were going to develop. I definitely didn’t think of mobile applications as an option, though. I think I was mostly concerned about how we were going to develop some sort of software in a short semester’s time.

I am very new to programming and technology development so my initial goal was just to learn. I wanted to learn anything I could about either programming or software development to get a better idea of what this field even is, nonetheless whether I’d be interested in pursuing it as a concentration of mine as well as a possible career path. While that was my main goal of this semester, I also wanted to make sure that the lack of assignments and grades in the class didn’t affect how I performed in the class. I am a very results-driven and competitive person and I think that is why I have always done so well in school, but I think that’s also because my work ethic aligns with the traditional grade system. Although I think I work best with the push of deadlines and grades, I still managed to put maximum effort into this class. Honestly, I was a bit surprised that I managed to maintain that effort, but I think it was because of the material that was being taught. Since it is a technology class, the material and skills builds upon one another. If I had not come to class, I would be left at a disadvantage not only for the next IKM sector class, but also in my professional life as it is likely that I will be hired to be responsible to do some programming or software work.

As the semester went on, my goals only evolved a little. They shifted when I began my senior capstone project. Once I picked that I was going to join the existing project of JMScoop, I wanted to learn as much as I could in class that way I could apply it to the project. I wasn’t sure if I would be the one coding the application or not, but either way I wanted to be able to correctly code the app and/or be able to keep up with the development of the app that the seniors are working on.

I feel I was successful in accomplishing my goals. My original goal was to just learn. I learned all of the steps to developing a mobile application. We began with developing a problem statement, but also conducted a social context analysis, drew up screen mockups, created a relational database schemas, learned about different types of servers and finally began using angular to efficiently code pages like a sign-in page. I also learned the difference between a native app and a progressive web app and why native apps are often unsuccessful. As for my other goals, I didn’t completely let the grade-free structure of this

class affect how I performed in the class. I came to nearly all classes, completed the assignments, and worked through assigned database and Angular tutorials. Lastly, as my goals evolved to make sure I am prepared to complete my senior capstone project, I actively thought about how what we learn in class could apply to the project. While I do feel I was generally successful in this class, I did fail in a few aspects. I didn't come to all classes that I possibly could. I also didn't collaborate with my peers. You had suggested at the beginning of the semester that we meet with someone we don't know outside of class. Well, I never got around to that nor did I collaborate or brainstorm about app development throughout the semester. However, I can say that I may have a few new friends.

From these failures, I have learned that I need to work harder on putting myself out of my comfort zone. If I had followed instructions and made the effort to get to know someone new, new ideas and bonds could have been formed. I could have possibly gained new ideas and perspectives for my original problem-solving app of the off-campus ride sharing app. I also could have met with you for coffee like you had also suggested. From that, I would have discovered earlier on that you were advising a capstone project that was working on an app just like one that I wanted to develop. From there, I could have gotten working on the app earlier and perhaps have made more progress on the app. Or I could have at least gotten to know you better, but I guess that can still happen as we work together on capstone!

As JMU's Mission Statement states, it is their mission to produce "educated and enlightened citizens who lead meaningful and productive lives". After this semester, I do feel like I learned. I mentioned earlier, I learned more about the steps to develop a mobile and how to begin coding an app. I also learned more in my other ISAT sector classes. So, I guess that makes me more educated. I guess it also makes me more enlightened. I don't know if I actually feel that way, but if I feel like I have learned a lot this semester so I guess I should feel that way in a sense. When I think of the word enlightened, I associate it more with reaching some sort of nirvana-esque level of knowing yourself. So, maybe I don't feel more enlightened, according to my definition, since I accepted a job offer that I never thought I would have accepted.

This summer, I will be working for Deloitte as one of their Business Technology Analyst summer scholars. The only reason I even applied to this job is because of this class and the JMU alumni/Deloitte professionals that came to speak to our class. Without this class, I probably wouldn't have had the confidence or ever think that I am qualified enough for the job. Although I am extremely proud of this accomplishment, it is not quite exactly what I have imagined for myself. I always have never been sure if a job in an office setting would be right for me, nonetheless, a big company job. I have always envisioned myself working for more of a grassroots campaign that makes me feel as if I am really making an active impact on the world and the environment. I also have always dreamed of traveling the country and the world and possibly living abroad before I really have to settle down and work for the rest of my life. However, because of my Deloitte internship, I won't be able to study abroad in Germany for a month like I had wanted to. Once again, I am going against all that I had always envisioned for myself. It makes me a little upset that I have fallen into the corporate money trap instead of actually exploring a

lifestyle I have always pictured myself living. Regardless, I know this internship is a wonderful opportunity and it will teach me more than I could possibly imagine – like if a corporate job is even something I would be interested in for my post-graduation life. I know I still have a chance to explore the more humble lifestyle I have always envisioned and I'm just being melodramatic. On the other hand, thanks to the corporate money trap I have fallen into with Deloitte, I will have enough money to send myself on a European trip later in the summer since I will be missing out on my European adventure through study abroad. Maybe after I cash out the money I make over the summer on a European adventure, I'll decide all the money and the corporate lifestyle is something I like. I guess I'll get a better idea after this summer.

Like I mentioned earlier, I was a little unsure about how this style of a grade-less course would work for me since I, probably like most, am more of an immediate gratification type of person. I am competitive and am good at managing my time to get assignments in by deadlines so I am very accustomed to the traditional grade-centric system of school. However, it was one of my goals to give this style of course a chance and still give maximum effort although we were not receiving grades. I think I was successful in accomplishing my goal as I believe I was almost as successful in this style of course as I am in the more traditional style of course. If I were to take this course again, I would recommend that you keep up with the weekly blogs. I liked how they provided the class with some added structure and gave me some insight on what we would be working to accomplish the coming week. It was a great way for me to track what I should be doing and when. I did like how we presented at the beginning of the semester, pitching what innovative problem-solving app each of us thought up. It was very interesting to see how each person approached the problem they chose to attempt to solve. I would recommend keeping that part of the semester!

I would like an A to be submitted to the registrar because I attended almost all of the classes, completed the assignments on time, and worked through assigned database and Angular tutorials. Thank you so much, Morgan, for a fun and informative semester. I look forward to working with you for the rest of my time here at JMU.

Exit Interview

Chris Bell

December 13, 2016

ISAT 340

- What were your expectations coming into this class?

Coming into this class I had few expectations. I suppose one of the first expectations was that the learning style would be relaxed. Obviously, word gets around about “the professor who lets you choose grades”. However, that is not the reason I chose to take the course. I took the course because I wanted to learn how to think more like a programmer, a “coder”, a software developer, etc. I didn’t really expect to come out of the class knowing how to write code any better or worse than I do now. Yet, as I learned more and more about the course from other students I expected the course to give me a good taste of what software developers go through. Becoming technologically savvy is no longer as unique as it once was. In fact, if you are NOT technologically savvy, you may have a disadvantage in the modern workplace and/or society. I expected to better my technological terminology, skills, and problem solving tactics.

- What learning goals did you set for yourself?

As mentioned previously, I did not know what to expect coming into the class. With that being said, I did not set any goals until about week 2. It was then, that I had a better understanding of what I’d actually be doing throughout the semester. Though writing code isn’t one of my passions, I wanted to make the most of the class so I decided to focus on the “lingo” used by code writers as well as the thought process behind the code. I figured if I can’t write the code, maybe I can at least understand what a developer is talking about if he/she tries to explain it to me. Communication is a very important skill, in my opinion, and everyone uses it in a different way. One of my goals that I’ve tried to develop is to communicate efficiently, regardless of expertise barriers, career differences, or technological disadvantages.

- How did your goals evolve over the course of the semester?

This semester was actually very unique for me as a human, not only as a student. Prior to this semester, I had set some large goals and it just so happened that opportunities arose to fulfil them in the timeframe of this course. With respect to taking this class, though, I think they may have distracted me for a couple weeks, but I was able to catch back on. The two big goals I was able to accomplish this semester was finishing top 40 in a national race and landing a job for the fall. I made a promise to myself that I would not let my work ethic become hindered by having a job waiting on the other side of graduation. However, it did take off a lot of competitive stress that I had felt prior to landing the job, which was really nice. I found that I could work through school work with a more open mind. As far as the evolution of my goals, though, I can’t really conclude any major changes. When I came to JMU as Freshman, I entered as a computer science major. I really enjoyed learning how to think “like a computer”, but something, somewhere, did not click. The professors did not give me the guidance that I believe I needed, given that I was starting from knowing absolutely nothing about writing code. With that in the back of my mind, I knew that I didn’t want to pursue

that so I wanted to focus on the thought process behind it to see if that helped my understanding. As I progressed in the class, I realized I had completely misinterpreted what developing software was really about. This was good news to me. At this point, I became much more intrigued that there was more to software development than writing code. Resultantly, my goals shifted to support this "I don't need to know code to help develop software" approach.

- In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

One of my favorite parts of the class was when we explored drawing out our ideas. I had never used that approach and, to be honest, was wondering if I would even find it useful. My partner and I had taken some time to plan out some of the details of the app we wanted to make. We were careful not to get too out of scope, but also sure to include necessary components to make the app functional. After having difficulties getting my thoughts on paper verbally, I switched to drawing them using the "traced phone" tactic. This really helped me transfer my thoughts to paper much simpler. In a way, this is where I felt most successful. Usually, I block out drawing or sketching from my arsenal of "things to solve problems". However, through this class, I realized that it is actually really helpful for me to do that.

- In what areas do you feel you failed to achieve your goals?

I really let myself down about $\frac{5}{8}$ the way through the semester. Once we transitioned to "making databases" online, I lost sight of what I was supposed to be doing. More so, I didn't understand a lot of the terminology as well as I should have known which held me back a bit, and after a while I found myself jumping over steps just to keep up. I became very wrapped up in trying to stay inline with what we were doing in class to focus on the goals that I had set. Consequently, I found it difficult to relate my prior knowledge to the things we learned towards the end of the semester which held me back a bit. In some of my concentration classes, for example, I can use my previous knowledge to aid my misunderstanding of a concept. This was not the case for 340, though. At times I felt like I was in over my head.

- Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

I realize that I got lost in this class. However, I think the biggest takeaway from this class, and from Dr. Benton is that there are infinite resources available to help me answer questions. In retrospect, I think I should have taken a closer look at the tutorials and invested a bit more time in the foundations of software development. This would have really helped me progress at a more steady rate. Instead, I found myself trying to piece together the class like a puzzle. I have begun exploring Lynda.com as a resource to learn a lot of skills. Looking to the future, I plan to pick a few skillsets at a time that I would like to increase my knowledge in. From there, I will use different resources to solve my own questions and problems so that I can become a more self-reliant asset.

- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

I really wanted to express my feelings about becoming more enlightened this semester. Previously, I had mentioned to you in person that I was a heavy stressor. As a busy individual, it can be very easy to lose sight on what actually matters in life. This class, from day 1, has taught me to relax, and let

my mind grasp information, digest, and apply the knowledge where it needs to be applied. There is a difference between stressing and caring; a difference I had skewed. You had mentioned that by not having an official grading system for the class, students would become more self reliant and ultimately more creative if the system was approached appropriately. I did not grasp this concept fully until about halfway through the semester. It wasn't until I received a job offer that I fully understood the concept. Once I had the overhanging stress that most seniors feel off of my shoulders, I became a much happier person with clearer goals, ambitions, and thoughts. My workflow became more organized, and assignments got completed with ease because I was doing them out of ambition rather than obligation. There is certainly a strong relationship between stress and anti-productivity. After navigating my feelings on both sides of the spectrum, I finally realize which approach is better for productivity and mental health. I really appreciated the opportunity to take a class in which I could fully embrace this.

- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

This response complies with the statements immediately above. I absolutely feel like I understand myself as a person much better after this semester. In fact, I would present myself moreso as a human who happens to be attending college rather than just a student. There is a difference. I realize that I can apply my 4 years of college to a variety of world problems, many of which I interact with on a daily basis. This mental transformation allowed me to develop personal opinions and values that I plan to use in the future. Additionally, I believe these opinions and values will help make my skills more valuable by offering another aspect in which people can relate and understand me as a person, not just an employee or student.

- How did this style of course work for you?

This course worked fairly well for me. As mentioned previously, I was able to become less stressed on the grade and more focused on the information. I found myself thinking deeper about the possible applications of the topics I was learning rather than wondering how in the world I was going to do it. With the help of a partner in the class, we were able to talk through the information and share ideas, making the class very interesting. The class was interesting in this sense because even people that weren't interested in becoming a software developer could relate to the topics and add input without feeling vulnerable or uneducated.

- If you were to take it again what would you recommend that I do it the same or differently?

If I were to take it again, I would recommend that there was a day that the class could explore the different resources like Lynda and other tutorial sites that could be taken advantage of outside of class. When assigned to do this outside of class, I feel many people did not do this and were lost. I think that by having you explain the usefulness of these tools and how they are designed to help aspiring professionals, people would explore them and become more skillful in ways they may not have thought they could have been.

- What grade would you like for me to report to the registrar for you, and why?

I've given this question quite a lot of thought throughout the semester. After completing this course, I will admit that there are certain areas that were covered that I could use improvements on.

However, I think these specific areas can be brushed up with tutorials and online resources. I did not take the class to watch tutorials. Contrastingly, I took this class to learn about the processes involved in developing software. Furthermore, I feel that I learned several key approaches to problem solving as well as getting my thoughts on paper that will help me in the future. I would like for you to report an A to the registrar because I genuinely feel that I took a lot from this class. My understanding may be off, but overall, I feel that there were many reasons that people may have chosen to take this class. Some people are focused on writing code and others, like myself, are focused on understanding the language that developers speak as well as the thought process that developers endure so that, ultimately, I can communicate efficiently and effectively with them in the future. Thank you for a great semester.

Sara Kraeutler
Dr. Morgan Benton
ISAT 340: Section 0003
December 13th, 2016

ISAT 340 Final Reflection Paper

Dear Morgan,

I must start off with a disclaimer, I am an upfront, black and white kind of person. I don't like to make excuses for myself or others and feel that when two people can speak the truth, while it might hurt, it is the best situation possible. That being said, my final reflection paper is a pretty blunt reflection of my experiences in your classes not only this semester, but also last semester in ISAT 252. Now don't freak out, it is not all bad, I did enjoy myself (I promise); it is just very simply put, to the point and honest. I have conversed with some other classmates to draw upon my experiences in this paper. Your grading policy and classroom experiences are something a lot of students have never experienced before and it can be intimidating but it also leaves potentials for student to take advantage of it. I believe that you have influenced me to be the person I am today and need you to know that with this paper I mean no disrespect. It is through this reflection I want you to see light into the reality of your class from a college student's perspective. So here I go:

As you are aware, I was also enrolled in ISAT 252: Programming and Problem Solving with you in the Spring of 2016. Coming into that class I had hoped to come out with a basic understanding of how to code and what issues coding could solve. I knew nothing about your make-your-own-grade policy before enrolling for your class that semester however, was excited about it once the first days of class came about because I felt that with my hard work ethic that I pride myself on, I could earn an A no matter what happened. When the end of ISAT 252 came about, I found myself still unsure about how to code a basic "Hello, World program" on my own. I did not understand how to code or what the coding you wrote meant even though I went to class almost every day. It's not that coding was "not my gift" it was just that this was something I have never experienced before. I had never taken any computer science or programming classes in high school, I never had the opportunity to. Yet, I still received an A for what I am assuming I wrote about in my ISAT 252 Final Reflection paper and for coming and sitting in class every day which is hard to justify.

When deciding whether to sector in IKM or not, I was concerned that because of my poor understanding of content in ISAT 252, that I would be at an extreme disadvantage for junior level classes in this sector with other professors. At first, this discouraged me to continue IKM as a sector. However, when I saw that you were teaching ISAT 340 in a time that would also work well for my schedule, I believed that I would be okay with sectoring in IKM as I just had to take ISAT 340, which I believed would be like my 252 experience and then take ISAT 341 (which from what I have heard is not related to ISAT 252 or 340) and I would be good to go. I would still be able to maintain my GPA, and do well overall. This is important to me because I plan to go to graduate school post-college and graduate schools consider GPA in the application process.

Even though I was unable to code in ISAT 252, I was still very interested to learn and understand how computers functioned. The technology industry is a booming industry and I hoped to get insight into how the world functioned via technology. Additionally, you should be aware that this semester I was enrolled in 19 credits while being a full-time in-season student athlete who by the time school had started, knew that she was going to be a key

player on the field every game. My days would typically consist of arriving on campus at 8am and not leaving until 6:30PM on a normal day. That meant I usually had 5 ½ hours a day once I arrived home, 27 ½ extra hours a school week to eat dinner, freshen myself up, and do anything I needed to do before getting to bed to get a decent night of sleep. I knew that when enrolling in ISAT 340, I would not be overwhelmed with work and would be able to carry this course load as it would not require a lot of time. While you say, we should be putting in about 6-7 hours towards this class a week, I can assure you that most students do not do this, even though they may have written it on their reflection sheets. Without putting in the work asked, I still received an A and that in itself is contradictory. And I think what is difficult about this situation is that I can completely understand and support your perspective of student-driven learning however, in my experiences, when we are in a class where we have no idea what we are supposed to be looking at because we have never done any software development or programming previously, it is hard to know where to start. On your website, you say, "I don't want to create a reason for students to be dishonest with me" But from my experiences, students are not going to admit they do not know what they are doing in a group setting for fear of judgement. The culture surrounding education does not support those who cannot stay on track with the pace of curriculum which is difficult when you fall of the track and are told to fend for yourself.

Despite my poor understanding of ISAT 252, when enrolling in ISAT 340, I did set learning goals for myself. I decided that for my app, I liked the idea of the JMUSports App as this was something I was obviously passionate about because I am a student-athlete and felt that this was an issue in which an app would be very purposeful for! I was hoping that through sticking with the IKM sector, I could gain a better understanding of what I was doing in ISAT 252 and potentially learn how to implement this into potentially my senior capstone project. I wanted to make sure that no matter what I did, I was purposeful with what I did. I started off the semester strong while doing a great literature review, creating personas, doing screen drawings by hand and through technology, however, when it came to coding the app, that is where things went downhill. I didn't know what I was doing and therefore I lost interest. My teammate, Mark was in the same boat I was. Austin, the CS major, could fend for himself however, Mark and I could not.

Over the course of the semester my learning goals evolved. In the first half of the semester, I was successful in making progress on my app. I could do the literature review, create a problem statement, do screen designs and develop a plan for my app as how I wanted it to look. I could understand somewhat the database table I would need for my app to function properly. However, when it came time to building my database, I was so lost in where to begin with the coding, as time went on, I kept falling further and further behind and could not catch up. In the second half of the semester, because I was so far behind, I did not know what I could do to catch up. I feel that maybe something that could have helped me during this time is another presentation or check-up as to what we had done so far for our app. Perhaps, then I could have regained my footing and caught myself up.

Over the course of the semester, I found that due to the style of this class, it was difficult to get group work done. Others have a mindset whereas almost, how little work could I put in to still get an A in this class. To get others to put in the time and effort was like pulling teeth. It was almost as though they felt, "I don't need to do anything because I will get an A." And while, per the syllabus, this is true. I don't think it's right for the end of the semester to come, a student to have done nothing or not come to class, and still receive an A.

Not conducive to group work

based on the criteria they can write on a paper. I can appreciate the methodology of no grades so that students are self-driven but I also have an issue as to how a student could be self-driven if they choose to sleep in rather than come to class to receive an education? While you say, "I don't want artificial elements like grades to stand in the way of you falling in love with something new," I feel like graded or even just participation assignments help students stay on track of their long-term goal. This semester, I lost track of my long-term goals. I was successful in terms of the pre-coding items, but once we got into the software development aspect of this class I failed to achieve my goals.

From my experiences in this class, I have learned a lot. From my failures, I have learned that maybe, seeking help is the best option when falling off the track. Additionally, I have learned that students learn differently and the American education system reflects this. While we have classes like yours, which are at one end of the spectrum and classes at the other end of the spectrum where you have 4 tests and that makes your grade it is extremely hard to come up with a solution. While I understand that you are not our boss, and we are not your employees however, our tuition pays for you to show you our work so that we can prepare for the industry standard. And for me, I find it difficult that if put on my resume that I took a software development class, and received an A, that I have limited skills to show for it?

JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives". After enrolling in you ISAT 340 and ISAT 25 classes, I feel that I am more educated, however I don't feel I have reached the level of expertise that I should be for having taken these levels of classes for a year. If I were to have taken a year of biology courses, I would be able to explain the study of life from the big picture level to the microscopic level. However, with your classes, I don't feel I have this skill. In terms of enlightenment, I do feel I should be at the level of enlightenment that I am currently at after taking one year of your courses. I enjoyed learning about how much goes into one mobile application development, and how many hours of behind the scene work it takes. Additionally, I enjoyed getting to know you more over coffee in the beginning of the semester. I think my favorite part of your class overall though was being able to do yoga. I suffer from severe anxiety and depression and am medicated because of it. (Hence, I am freaking out about how you are going to react to this non-traditional reflection letter).

My activities this semester in this class have allowed me to learn about myself more and what I want to do for the near future. I have learned that software development is a very tedious and time consuming task in which I do not have the patience for. However, after taking this class, I have a new-found appreciation for it.

As my entire paper reflects, this style of class is very self-driven. For student's like myself, I pride myself on my work ethic and will put in the work to deserve an A. So for, me this style of class works well. I can explore the unknown at my pace and go all for it! However, for others, since there is no end goal, or no end deliverable, I feel like it does not work as well. With no deliverable, nothing gets done and hence the "I don't have to do anything to get an A" mindset.

You have heard my opinion on your classes and if you were to ask me to recommend if you should do it the same or differently, I am not sure what I would say. I appreciate the freedom you give students however; I feel like sometimes they may get taken advantage of. If I had to say anything I would suggest check-ups throughout the semester to see where we are at. Perhaps after every 2-3 assignments just to make sure everyone sees and understands what we are doing. Additionally, perhaps a mid semester report like this final report could be useful as I don't

believe one three page essay should be worth three college credits. I feel that some sort of grading conversation is to be had so that I have some sort of idea as to what my final grade will be before it goes on my final transcript.

I hope you understand that I mean no offense when I say any of this. My main goal is to express my concern for how students may take advantage of you with your grading policy. For me, I feel that I have not done this and have earned my way to an A. I have come to class for much of the semester, I done most of the assignments, and have paid attention to most classes. I have put in a lot of work with my group, and for what it counts, I have been honest with you. It is for these reasons I ask you to report an A+ for me to the Office of the Registar. I have put forth the effort in this class, more than all other students.

If you would like to discuss my essay further, I would be willing to set up a time with you to do so, as I respect you and the culture you have created in your classroom. I have enjoyed my time with you this semester and look forward to seeing you around campus in the future. As, always GO DUKES!

Best regards,
Sara

Alex Hansen
340 Final Paper
12/08/2016
Benton

340 This semester

Coming into 340, I had never had Dr. Benton for a class and I wasn't sure exactly what to expect. I came in hoping for two main goals, one, to figure out if this was the concentration for me and two, to learn about databases and how to create my own app. This was my biggest goal and the biggest thing I expected. At first, I didn't know what exactly I wanted to create my app on but then I had this idea of informing people of their finances daily via text message. This app would sort of be like Digit, except the purpose of the app isn't to save money but to be informed about your money and how to spend it. It would include articles on finance and investing. As the semester moved closer to an end, my goals changed. I just wanted to create and produce a prototype for my app. Unfortunately, I could not get my prototype up and running because there are errors in the code I have not fixed yet. Although these errors are very disappointing, part of what this class has taught me is its okay, it is more about the journey sometimes then the outcome. I succeeded at doing mock ups and produced a sleek design for my phone application. I also thought a lot about my app and this allowed me to think through all the screens and gave me a way better idea of what I needed to do. I also felt like a success when downloading the angular cli because I have never used anything like this before.

I failed as a whole to produce a prototype that is running fully. This bummed me out really bad because I would like to think of coding as my strong suite and not getting something to work after large amounts of trouble shooting is depressing. I have never not got something to work that I have put a lot of time and effort into before this semester. This was a huge eye opener for me, never before have I been faced with a challenge I could not complete in a certain amount of time. This single factor made 340 my most valuable class this semester. The part that I found the most value in is that even though I didn't complete my app, I tried my butt off and found that I actually was understanding the information rather than just memorizing it. Almost all teachers just expect memorization and if you cannot memorize fast enough they give you a bad grade. This failure taught me that it is okay to fail and that life moves on. It also taught me that no one is perfect and it is unrealistic to think that you can be perfect. This realization and a couple external factors made me go into a deep depression and self-realization period. From this period, I realized that in order to make others happy, first you have to aim to make yourself happy and if you are not happy, you have no one to blame but yourself. Whether it's because you didn't work hard enough or you didn't succeed or whatever reason you're unhappy, you will not truly achieve until everything is right with you first.

Another huge challenge for me was coming to class, like previously stated, I enjoy coding a lot and I felt that I didn't need help so why bother go to class. Being sick for a long time in the beginning of the semester plus the fact that I was facing some extreme emotional issues like stated above about the depression, I just didn't find myself giving myself enough motivation to even get up in the morning. I have a hard time asking for help when I do not understand something. I thought that if I just kept troubleshooting that I would be able to figure out why my code wasn't working. I did this over and over again instead of just coming in

and asking Dr. Benton. When I did come to class I learned about different tools I could use to make my app better. This ties back into the lesson of you are the only person that can make you succeed and be happy. One morning I woke up and stared at myself in the mirror and just said out loud "What am I doing with my life". This was the moment I realized that I had hated what I had become and that I had to get my life back on track. From that moment on I have just been focusing to trying my hardest at everything I do and to stay positive. I also am learning how to ask for help, which I've never really had to do. This is a huge take away from this class. School always came extremely easy to me and I never really had to engage with my teachers because I didn't really need their help to understand. I thought if I stuck to what I knew how to do than everything would be alright. But boy was I wrong, this class has made me realize that somethings are just too big to concur on your own.

As you know, JMU's mission statement is to produce "educated and enlightened citizens who lead meaningful and productive lives". This speaks to me because before this semester I didn't know what I wanted to do at all. I even considered dropping out of college because I wasn't passionate about learning more information and I found it just more tedious work and less of education enrichment work. But this semester has enlightened me in a couple of ways. If asked, "do I feel more enlightened?" I would answer "yes, 100%." My drive, determination, and plan for my life is completely opposite now as it was coming into this semester. I have reconnected with God and realized the path I want to take in ISAT. I am planning now to pursue IKM and TNS as my main sectors. I have not decided which to concentrate in because each offer unique experiences that could help me in the job field but also in my personal life. I also just feel better about myself now that I know what I want to do but also because I can look into the mirror and not be ashamed of what I see. If asked, "do I feel more educated?" I would still answer "yes, 100%". This class has taught me to look into APIs and other premade code in order to assemble and troubleshoot application development. I am also way more educated about decision-making and how to manage life when things do not go your way. It also significantly helped me understand the process of making applications for mobile devices. I learned that in order to produce an app and maximize my audience I have to think through what kind of stakeholders would use my app. Many of these small parts of the beginning of development were the areas I was most confused how to preform or start on.

This semester and this class has opened up huge doors for understanding who I am and what I want to do. Throughout this semester I have made serious progressions in my Integrated Sciences and Technology career. I found a capstone that I am thrilled to complete which helps a real world client gain a sustainable energy usage application for his company and expand on that and hopefully publish reports on this project and maybe if I'm lucky take this product to market . On top of that I gained a better picture of what I would like to do in Integrated Sciences and Technology education. I would realistically like to start my own company or consulting firm after working for a leading company to gain experience. Once acquiring some capital, I plan to invest in stocks and the housing market to diversify my assets and gain wealth-increasing assets. At that point if all is still going as plan, I would like to just raise my family and manage my company and hopefully continue to engineer and innovate. My other main goal in life is to provide for my family as well or better as my parents provided for me. I figured all of this out when I was sitting staring at myself in the mirror just looking at what I had become. I wasn't proud or happy with what I saw in the mirror and it was that moment I realized I had to

change in order to get to where I want to go. I made huge strides all because I wasn't required to go to class which made me gain my sense of want again. Before this semester I was in a downward spiral and there was no help in sight but then right as I hit rock bottom, I looked into that mirror. Now I have a plan and an agenda in which I would like to complete but also new found confidence, all thanks to this class allowing me to be the leader of my journey and not the teacher.

The style of this course definitely made me push myself more because I didn't have to prove anything to anyone but myself. The only thing I didn't like about this class was that attendance wasn't mandatory. With the early time and the frequency of the class, it was super hard to get up and go. If attendance was required, I feel that it would have pushed me to go every time. I also really liked how Dr. Benton would actually do the activities which allowed great guidance. I would have never tried or attempted the angular cli if a teacher just recommended it to me but because of Dr. Benton actually demoing it in class and how easy it was, I decided to give it a shot. I would keep the whole class the same but I would make attendance semi mandatory to encourage students like me and that have similar problems as me to push themselves to wake up and go. Also, I would have preferred that Dr. Benton would have showed us how to use the database software in class more and provided more worktime for the student where Dr. Benton could walk around and help the student. But other than those two points, the class should remain the same. I really liked how Dr. Benton set up his own website for our class that was so interactive. This website kept me up to date on class assignments and on what I should be learning each week. The choose your own grade policy allowed me to push myself at my own rate without feeling forced to learn it. This is the first class I have ever felt that way towards. I have always just gone to school because my parents told me to but Yourself is the only person who can actually make yourself do things. This class has given me my drive back and I will be forever grateful.

The most intriguing part of this class was the pick your own grade aspect. I believe I deserve an A in ISAT 340. Although I missed some classes, there are a couple of reasons you should report an A for me to the registrar. For one, I gained a lot value out of this class and Dr. Benton's teaching style such as learning the different steps of the application development process. Before this class I never thought about having to draw up all the screens for my app. This class also made me realize who I wanted to be and who I am currently and what I need to change by teaching me that you are the only person who can make you succeed. Although I do not have a working prototype, I put hours upon hours on coding and attempting to make my mobile banking app up and running. Furthermore I believe I deserve an A for the semester because I gained understanding of what it takes to bring a project or application from start to market. I also learned about different techniques and ways to construct the application from writing it in x code for Mac or making it a progressive web app. This class showed me that it is okay to fail sometimes because those failures are what make a person stronger. This class furthermore taught me that in the real world there is no one to babysit you and that if you want to get something done, you have to want it and go out there and take it. For me, this class taught me as much mentally and about myself as it did educationally about coding. There are a million classes I could have taken to learn code that I already know but this class allowed me the freedom to explore and decide my own path. Thank you for a great semester and I hope you have a great winter break. Happy Holidays!

Steven Campbell

ISAT 340

Morgan Benton

End of Semester Narrative Essay

Coming into ISAT 340, I didn't really know what to expect besides furthering my knowledge of programming and software development. The only previous work I had done with programming was with Radziwill and Teate in 252 where we learned about python and R, so my knowledge was limited but I had a little bit of prior experience. From my time in 252 I expected to have an assignment due almost every week because that's what we did in 252, but overall I felt like that wasn't the best use of my time considering if I wanted to get something on the apple store, I would use a different software application. I was expecting to do a lot of programming in one language just as in 252 and have a fully functioning application that my partner and I wrote in some application in the beginning of the semester. Hearing that we could choose our grade at the end of the semester definitely had an impact on what class I took as well and I was very excited to try a class like this. I liked the idea that the class was intended for us to actually learn instead of us following directions from a professor so we could get the best grade in the class.

When I first saw in the syllabus that attendance wasn't mandatory, I set a goal for myself to not fall into temptation and let the amount of times I skipped affect my learning in the course. I knew from my first semester here at James Madison University that I am susceptible to taking advantage of professors who don't take attendance and I didn't want to let myself fall in that style again. When we first found out that we were going to be going through all the steps that it takes to produce a fully functioning application, I thought to myself that even though I don't necessarily have to do this like it says in the syllabus, I wanted to understand what it takes to create a real functioning application. Over the course of the semester, my goals didn't really change too drastically. I went from thinking we would have to write thousands of lines of code to realizing we really didn't have that much time left in the semester to write it and that this class wasn't focused on learning a programming language that would be obsolete in the next 6 months.

Over the course of these 15 weeks, I think I was very successful in expanding my knowledge about software and developing it. I think I was successful in that I am more knowledgeable about what is meant by the word software and taking it into modern contexts in terms of developing software aimed at mobile applications as opposed to desktop applications. I got real experience designing and analyzing the software development process which is important to me because I just accepted an internship offer for Lowe's in their information technology program and I think it will be a project based internship having to do with software. My partner Chris and I put in a decent amount of effort into furthering the progress of our Expenditure receipt tracking app, and I think we learned a great deal from the process in the course. Instead of writing code for a certain task such as calculating miles per gallon in python, we learned about all of the steps that are necessary in order to create an app. We focused on the screen drawings for a while and we understood how much time and effort you need to put forth to go through the whole process. I think I was successful in that I learned what it is like in the

real world as opposed to in a classroom setting which was very beneficial to me. Coming into the class, I had no prior knowledge of the whole infrastructure of the database and using database management software and I feel like I really expanded that knowledge through this class.

In the beginning, I didn't really have that many specific goals to achieve besides broad goals like expand my understanding. While it wasn't really a goal, I did think at the beginning of the semester that we would have written a ton of lines of code and have a fully functioning app, but we failed to get that far into the process. I also did put on my resume when we were about $\frac{1}{4}$ of the way done with the semester that we were in the process of writing an application and would have it finished by the end so that could be seen as a failure, but it kind of seems like that was just the cherry on the top, and not really a requirement for my understanding. I think what I learned from this was that even a seemingly small task, if you do it right will take more time than you usually expect.

The mission statement is to produce educated and enlightened citizens who lead meaningful and productive lives, and I definitely feel more educated and enlightened at the end of this class. Even though there were no standardized tests or required homework really, I think I've taken more from this class than I ever have from a class before. I have a way better understanding of what it takes to be a software developer and other jobs in that field, which will help me a lot later in life. I liked this class because I think it follows the mission statement more than any other class I've had because it focused on us learning and furthering our professional career as opposed to learning the answers to a test and working for a good grade. I feel like Dr. Benton did a really good job of getting us interested in class and tying in outside aspects of the real world that applied to software development.

Over the semester, I think I have learned a lot about myself. I learned that if I put my mind to it, I can show up to 9 ams on time three days a week which I honestly did not think I could do knowing my habits to sleep in. The class itself contributed to the expansion of my knowledge of what it actually is like in the software development realm and it helped me in my decision to concentrate in information and knowledge management. I think it helped me see that I didn't necessarily want to be only in the software development game and that there are many options for career paths in that realm besides strictly just writing thousands of lines of code. I initially came into this year wanting to some day be a consultant for a company and travel around the world for the company but I think my goals have changed. I would be fine with being a consultant, but I also would be fine with being something else in the information technology field. The internship I am attending this summer is specifically Lowe's Information Technology internship so I think it will be a great opportunity for me to see if information technology is something I could enjoy doing. I also think it is a great job to put on my resume and will open up a lot of opportunities for me for my future career.

I enjoyed this style of class because instead of only focusing on trying to get the best grade on my transcript, it was focused on me learning and understanding the concepts in the class. While I don't agree that learning should necessarily fun, I think this class style made me enjoy learning more than any other class has. It makes sense why we use grades here because it is an efficient way to provide feedback to a large number of students in a short period of time,

but it also isn't perfect. It's like that quote: "Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid." I think this class style uses the idea in the quote and utilizes project based learning in that project-based learning promotes exploration and interest in the class topic which emphasizes creative thinking skills by allowing us to find that there are many ways to solve a problem. Standardized tests may be the most practical way to assess our education, but at the same time it is kind of messed up.

Everybody comes from different backgrounds and has different abilities which is why there are different jobs and not just one career you can go into. I think this class tries to get rid of the stigma of standardized education by focusing on us really understanding the content of the class. I think the standardized education has made me not enjoy education as much as one should.

Honestly when it comes to classes I usually try and figure out the least amount of effort I can put forth in order to get a B at the end of the semester and besides one class it usually has worked well for me so far. The class attendance and homework not being mandatory made me challenge myself and try to find joy in learning. I wish all classes could be taught like this because it is what education should be: focused on the students really understanding the topic as opposed to memorizing answers for one test at the end of the class.

I really liked the learning approach this class had, and I think what we did and went over in class really helped me better understand software development. The project based class taught us everything involved in the process of making an application up until the actual writing code part which gave the class and myself a good idea of what it is actually like in the real software development world. At first I thought that there was already an app for everything you could need on the app store but after this class I understand that even if there is an app for what I need to do, it can always be improved upon or done differently to make it easier on myself. Instead of wasting time learning one programs language that would be obsolete in the next 6-12 months, we focused on the aspects that don't change about application development like screen drawings, database management, and choosing which software you want to write in.

If I were to take the class again I don't think there is much that I would change about ISAT 340. I think the project style class where making sure we understand is priority number one was a great experience and perspective changer. One thing I might add to the class at the end is a summary of what we have learned over the past 15 weeks like a document or presentation that we can utilize during and after the class is over. While there was one small thing to add I still really liked the class and think you taught it in a great way to help our understanding, and there is almost nothing I would change about the course.

I would like you to report my grade as an A to the registrar because I think I put a very good amount of time and effort into this class even though it technically was not necessary. I tried my best to show up to every class no matter how hungover I was and I think I only missed 3 or 4 classes if I am correct, which compared to my other colleagues is pretty good. The grade reflects my understanding of the course, because I really felt like I obtained a lot of valuable knowledge from taking it with you. I told myself I would put the effort into the class at the beginning and I stuck with it up until the very end besides actually writing the code for Chris and I's application Expenditure. We put a good deal of effort into our in class presentation and

screen drawings and even met up on the days you were gone unlike most of the other classmates, not to throw them under the bus. Overall, I think my effort put forth and knowledge gained from the class justifies my grade as an A. Thank you for being such an awesome professor and I am looking forward to working with you over the next three semesters on the capstone project

End of Semester Exit Review

Dr. Benton

ISAT 340

12/09/16

Claire Fulk

I always appreciate having you as a professor. You becomes more than just a "college professor", and it is evident that you put effort into connecting with your students on a deeper level. You really care about your students' well-being, and goes above and beyond to help them in any way you can.

- What were your expectations coming into this class? What learning goals did you set for yourself?

Coming into this class I wanted to learn. I did not have specific objects of, "I want to learn A, B, and C" because that is not your style. I knew I was going to learn, but it was going to be done in an integrated way where I do not realize I am learning something new.

- How did your goals evolve over the course of the semester?

My goals changed after each class as well as after one of my jobs decided to schedule me during class even though I gave them my class schedule. After the first couple of class meetings, my goal became understanding the process of creating an application rather than just blindly going through the stages. I wanted to learn more about databases, and I found the developmental stages very interesting as far as researching the target market and making the mock-up sketches. From classes that I took for my previous degree we explored market research, so it was nice to reflect back on that. But I had never done a phone's written out plan. This really made me realize how much went into even the simplest phone app.

- In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I thought I was successful in doing outside research when I could not make it to class. I would sit at work behind the computer and worked on

<http://www.sqlcourse.com/select.html>. This website served as a good resource to explore SQL databases in an interactive way. I also ended up partnering with Akram on his project because he needed more helping hands, and I had hit a dead end with my idea. It was really helpful to work with someone who was at the stage of development that he is. It was also refreshing working with someone my age (eh-em or younger) who is doing what he is doing. When I thought of creating an app that would be published and used, I always thought that that was just something a group of programming prodigies did.

- In what areas do you feel you failed to achieve your goals?

I was absent way more than what I would prefer to have been. I took on way too much this semester-way more than I could handle. I have finally discovered my limits and my breaking point. It was a bad experience, but a necessary one. It is good for everyone to know how far they can push themselves, and especially where to stop. I was working four jobs on top of all my classes and juggling more family drama than I would like to admit. Sometimes, life happens, and I do my best to not let that affect me professionally. But this semester it did, and that is where I failed. I was not able to invest myself in any of my classes as much as I would have liked to.

- Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

I informed one of my jobs that I am leaving this month. This will make it so that I can handle all my responsibilities next semester without killing myself. I am also going to take time over my break to reflect back on what I worked on in my classes and really instill those lessons. I am going to continue working with Akram because I learn the most through experience. I also learn how important my physical and mental health is for my success. I went from getting a solid eight hours of sleep a night and eating healthy all the time to rejoicing over 5 hours of sleep and having most meals come from the school vending machine. I have learned that I do not need to always say "yes", and I do not have to try to fill every expectation that my dad has set for me if it is not conducive to my health, and ultimately my long term success.

- JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

I always feel more educated and enlightened after taking courses with you, and it is never in ways I expect. Before taking this class, I had never thought about how websites and applications used databases. It just never crossed my mind. I also never considered the process of creating an application. It definitely was not what I would have expected as far as drawing everything out and researching all aspects. It makes sense to do market research, but I never considered doing it for a phone application.

- How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

It has helped me realize that I am not sure if application development is for me. I would be good at the preparation stages, but there is so much left to chance I feel. I remember you talking in class about how a majority of applications on the market are not used. I am not ready or passionate enough about an idea to make that jump. I learned that I am the type of person who needs to establish herself first before making any big jumps. I know that is not brave or exciting, but my parents have made it clear that it will be my job to take care of them when they get older. This means that I need to

have a steady, well paying job in order to do that as well as take care of myself. It would be a cool side-project, but definitely not something I could pursue as a main career path.

- How did this style of course work for you?

This style of course work was actually a saving grace for me this semester. Its flexibility was exactly what I needed. I did the work, but I was able to do it in the time frame and on the scales that I needed in order to learn, but also be able to keep track of all my responsibilities. I like that this approach is realistic about students being busy and having lives. Just because I may not be physically present at all of the classes, that does not mean that I was not putting in effort to learn the material. It was just that life prevented me from making every class meeting. I was able to learn when I was at work, and I was not being penalized for my job scheduling me during class.

- If you were to take it again what would you recommend that I do it the same or differently?

It would be beneficial to spend more class time working on the projects. That way you will be there to give direction. The type of projects we do in that class seem to be more of a “learn as you do” sort of thing. I will say the lectures were informative. You taught me about the set-up of SQL databases - how there are the rows and columns and how they relate to each other. You taught me about how there can be databases within databases. There are so many more layer than I realized. I thought it was great that you incorporated Virtual Reality into the class as well. It is a technology that would definitely be beneficial for students to be aware of and work with. Also, the fact that you brought the class down to the X-Lab was fantastic. I actually feel like having classes in the X-Lab would be conducive to your style of pedagogy. That way students can work on their in-class projects and then directly find out if what they are doing is working. The lab offers more of a “create and innovate” environment as opposed to a traditional classroom. Students would find more inspiration, I feel, working with newer technology.

- What grade would you like for me to report to the registrar for you, and why?

I would appreciate an A. I worked so hard this semester and learned a lot about the process of producing a phone application as well as working with and researching Virtual Reality. I was engaged when I was able to attend classes and took notes that I will go back over during winter break and really take time to work through everything with more detail rather than trying to rush through and learn. Life happens, and this semester life happened to me big time. I have learned so much, both about what I was studying as well as about myself. Sometimes, those are the most important lessons- the ones that make you a better person.

Yusra Wahbah
ISAT 340
Narrative Assignment
Dec 13, 2016

When I enroll to this class I was expected something similar to ISAT 252 but unfortunately it wasn't what I expected. After the first class and reading the syllabus I understand the learning objective of this class. So I expected that during this semester I would learn more about the steps and techniques required to develop modern software solutions to scientific and technological problems. And I also expected to learn how can I do a mobile application or at least the beginning strategy of developing mobile application or website. However, I expected to end this class with gained a new knowledge about software, and I am thankful that I did it and I gained knowledge during the semester even though I couldn't do the app for my problem statement.

From reading the syllabus, the learning goals that I set to myself in the beginning of this semester for this class was to learn the requirement skills of software development; how to describe a problem statements, write a social context analysis and scenarios, mockups, diagrams, source code, and database. Also, to do the semester project of doing a website or mobile application.

My goals were evolved over the course of this semester because even if I couldn't do the app but I learned the strategies and how can I begin a software development and I think if I have more time I will be able to make the mobile application work. In my opinion I think I successfully learned and understand the learning objective of this class but I was not able in making the mobile application work for my problem statement. Learning this was totally something new to me so I found myself reading more about but in Arabic not in English to understand it more clearly.

Successful in learning the concepts of the semester project that I work on it over the semester. Also, I was successful in achieving my goal of learning during the semester of understanding software development and gained new knowledge. I cannot say that I failed or I was unsuccessful for making the mobile application for my problem statement work. Again, if I have more time, I would make it work. Overall, I am really satisfied with what I achieved from this class from knowing almost nothing about software development to having the basic knowledge of making software. ~~And I can~~

I don't believe in failure, but all I believe that if ~~I~~ what I did was unsuccessful I should learn from my mistake and do it again to be successful in it, and do not never give up just because failing. I feel failed in achieving my goal when I couldn't know how to do the code to make the mobile application work. And I feel I failed in it because of the lack of information that I have in coding or software. I think I somewhere I failed because I didn't try to ask help in what I need help in it. I should be asked the professor or even the classmates when I don't understand something.

Learning from my failures is one of my rules in my life because failure is the way to be success in my opinion failure is part of success. And if I stop trying to do something or I just give up on it this what I call it failure. In future, I will try to asking people help when I need and to not be shy to ask even if I was not right I should always be ask to learn.

JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." I feel like I am more educated than enlightened. I feel that because I am a person who prefers learning from educated more than reading and teaching myself. Since I came from really different culture everything is different even the way of teaching. In my country Saudi Arabia the way of teaching depends of the teachers not on students. Almost the teachers do everything so that I do not see myself more enlightened because I did not used to teach myself and reading is my last thing to do in my life in the past. Also, one of the most different things between my country and here is the relationship between teachers and students. Maybe because of that I have a lack relationship here between my teachers and me.

No, what I did this semester do not detract me from knowing myself better. I grown a lot as a person and I understand myself much more. I am not a person who gives up easily, I never give up and I always learn from my failing, and I always get what I want whatever happened I will fight to get it. Studying abroad for five years impact my life and changed me in somehow. The impact of being alone in a different culture and country make me a strong person and what ever happen will not impact my goal. Suffer, fight and sometimes I give up on things I love just to reach my last stop of my goal.

To be honest, the style of this course does not work with me somewhere but I can deal with it. It almost depends on teaching myself more than lecturing because that I don't like it somewhere. I think if you teach us more than it will work with ^{me} perfectly. I feel like it doesn't work with just because I am a person who prefers gain knowledge from teachers or other than from teaching myself.

If I were to take this class again, I would recommend you to maybe start the project early so we can have time to do the mobile application or website work in the end of the semester. I like this kind of project but I feel sometime lost in it, so if you explained it more in classes would be much appreciate it. But overall the class was good and I like it because I learned from it.

The grade that I would like for me is "A" because I really see myself that I gained knowledge from this class even though my mobile application was not work but I try my best to make it work and I learn the strategy of it.

Personal Narrative

What were your expectations coming into this class?

Coming into this class I only had a couple expectation. The main expectation I had was that I would further develop my skills with HTML, CSS and JavaScript. Another expectation I had was that I would be introduced into other coding languages that could diversify and expand on my coding abilities.

What learning goals did you set for yourself? How did your goals evolve over the course of the semester?

In the beginning of this semester I set a few goals for myself. These goals were to design something that I would feel motivated to develop and use in my own life, and to begin to learn a new language. My goals developed to fall into place very nicely. I stuck with my first goal of developing something that I would use in my own life, which was a Workout app. With this taking a lot of time, I never really got to learn a new language but I did expand my knowledge of the languages I was already familiar with.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I feel like I was very successful with my goals. The reason I feel this way is because I have something very close to being able to be put out and used in real the world. I became very motivated with the development of this app in which Trevor and I want to continue to work together outside of class to develop it to a point where we can distribute it to people. I don't feel unsuccessful with my second goal because I learned a lot more this semester about the languages I already had knowledge about.

In what areas do you feel you failed to achieve your goals? Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future. JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives."

In contrast I do feel that I fail to learn a new language so actually as I started writing this paper I decided to look into learning about Python through Code Academy. I've learned from this failure that I need to learn to manage my time and learn to interwork my goals so that I can be doing multiple goals at one time. I also learned that once I get into something I have trouble doing multiple projects at one time. I focus on one thing so much that I allowed to other goal to slip away and not be a

part of my learning curve. I need to learn how to balance things better. I learned that I love learning things on my own time and I am very self-motivated and don't require much push when I feel connected to something I am working on.

Do you feel more educated? More enlightened? Less so?

After looking back at this course, the things I completed, and the way I completed things, I found that I feel a lot more educated and enlightened. I feel I learned a lot about how best I learn and just overall about myself.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

I found that I when I am forced to do something I don't understand how this can help me in the future it seems painful but when I am given the opportunity to make something however I want to I find myself enjoying it more and learning more. I have realized from this class that I never want to have a job where it is a requirement of mine to perform tasks with code but rather have it be a hobby of mine when I get older. I really enjoy coding and such on my own time and doing things that I want to do. I am glad that I have a greater knowledge of coding because that allows me to be more enlightened in my knowledge and have more skills that if I feel inclined to apply that to my future career. This class makes me love my major that much more because in the major you get to see how all the different fields of study connect and you're never limited to the field you studied in college. This class and ISAT gives me great insight into the future. I love the ability of this major to not be held down into anyone field but be given the tools to do anything in the entire world that I feel drawn to do with my life. I can't wait to see what the future holds because these realizations and these classes make me so excited for the future and what path my life will take.

How did this style of course work for you?

The style of this course worked great for me. With the type of stressful semester I had, it was nice to be able to take a break from the class and focus on other classes without repercussion. Then on the other hand it was nice to be able to just sit down and de-stress by working on my project. I always seem to lose a concept to time when I sit down and focus on coding. There will be times where I will think I've been working for like an hour and 3 or 4 hours has passed. Multiple times I have gotten sucked in that I will be up till the wee hours of the morning not realizing just having fun developing something that I enjoy. It allowed me an outlet for my stressful semester and also gave me a chance to work on my own pace but still develop something I'm proud of. I never felt overly stressed about the class, and the class helped me to learn about myself. I could have just slacked off and not done anything the whole semester but I wanted to learn something about the material and myself. I learned so much on my own time, which was just so nice for a change

If you were to take it again what would you recommend that I do it the same or differently?

If I was to take this course again the only thing I would have changed was trying to do a project in which I could develop an app that used a language I had no or little knowledge of. I feel good about this class and all I accomplished. I would recommend maybe having one learning tutorial every two weeks maybe. That way the kids can learn awesome things that they may not come across if they were just to build a website or an application.

What grade would you like for me to report to the registrar for you, and why? As per our agreement, please remember that you can ask me to report any grade that you would like and I will honor that request.

I feel I deserve an A because I spent a lot of time on this class and also I learned so much. I learned so much not only with the class but also with myself. I feel that college it shouldn't just be about the grades you receive. Yes I want an A but also I want to learn something about myself. College is more about learning about who you are rather than the information you learn. Yes you learn a lot of information and that is important but the experiences you and the bonds you make are way more important than any class. I feel I learned more about myself than I ever knew and this helped me to learn the material. This has been one of the most influential classes in college for me personally. I feel the effort you put in and the things you learn about your self should determine your grade rather then your test taking ability or how long you crammed the night before

S	#
F11	48
S12	100
F12	70
S13	80
F13	34
S14	82
F14	74
S15	85
F15	50
S16	81

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End-of-the-Semester Narrative Essay

What were your expectations coming into this class?

Coming into this class, I expected to gain an understanding and overall proficiency in software development. I originally signed up for ISAT 340 because I am sectoring in IKM and needed to complete this course to fulfill major requirements. Before taking this class, I had heard from previous students that they went through the early stages of app development when they took it. I was excited to do the same, as I have never worked on an app before.

What learning goals did you set for yourself?

After gaining a general understanding of the structure of this class, I strived to keep myself up to date with my semester project. Furthermore, I wanted to do enough in the class so that at the end of the semester I could ask for an A feeling that it would be morally justified. Halfway through the semester, Akram Abdou approached me and asked me to jump on board to his semester project, and help him get one step closer to launching his app, Presence. I wanted to help him in his app development from a consumer's point of view. Finally, I wanted to leave the class feeling more prepared to take subsequent IKM courses.

How did your goals evolve over the course of the semester?

Throughout the course of the semester, my goals remained relatively unchanged for this course. I still want to ask for an A, feeling that I deserve it for the work that I have put in. Furthermore, Akram is extremely close to launching his app. Therefore, I would like to continue helping him in any way that I can.

In terms of overall goals, I became very determined halfway through the semester to better my overall grades, and get ahead. I had felt that I was getting lazy and felt that I let myself fall behind in my classes. Therefore, I made it a goal to stay on top of my course work.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that could serve as evidence of your successes.

For the knowledge I had coming into this course, and the knowledge that I gained after taking it, I feel like I did the best job that I could on my course project. I worked on my own semester project, a textbook Trivago type app, for a large portion of the semester, and got a good amount of work done on it. For example, I got all of my screen drawings done for what I was trying to achieve with the app. Not too much longer after that, I started working with Akram. He asked me to help him test competing apps and tell him where he could improve his own, from a consumer's point of view. After downloading the "Pie App," another 360 degree-based, Instagram-like platform, and his largest competitor, and using it for a few weeks, I made a long list of strengths and weaknesses for the app, as well as some pointers on where he could improve his own. One major feature that I suggested be incorporated into his app is a "watch later" function. Finally, I feel like I am more prepared to continue with the IKM curriculum.

In what areas do you feel you failed to achieve your goals?

Overall, I believe I did a good job keeping up with, and achieving my semester goals. However, at times, I did find myself becoming lazy. Because I understood that nothing in ISAT 340 was graded, sometimes I found myself struggling to keep myself accountable and get my work done. At times when I had a lot of work due for my other classes, it was easy to put 340 on the backburner for the time being.

Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

After some reflection, I've realized that I need to hold myself accountable more and in equal amounts for all of my classes, whether they are graded or not. I believe the best way to hold myself more accountable is to make a schedule for everyday of the week, divided up into chunks of time dedicated to each of my courses. Within these allotted time slots, I will only work on the materials for the respective class. I have never been the best at keeping a planner. Most of the time, I make mental notes of what I have due, and accomplish tasks one by one in that manner. Although I have done well in school, I believe keeping a strict schedule will enhance my performance. I am excited to see how holding myself to this type of schedule will improve my grades in the future.

JMUs Mission Statement is to produce “educated and enlightened citizens who lead meaningful and productive lives.” Do you feel more educated? More enlightened? Less so?

With the whole semester in mind, I do, in fact, feel more educated and enlightened. I am concentrating in energy and did very well in all of my energy courses. I believe that I will be able to retain a large portion of the information I learned in all of those classes for years to come. Furthermore, I do feel like I will be able to perform well in subsequent IKM classes with the knowledge that I acquired from 340.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

Eventually, I want to work in the renewable energy industry. More specifically, I would love to work with wind. I believe that all of the courses that I have taken have helped me move closer to that goal. Furthermore, I am an operations supervisor at UREC. I consider myself extremely lucky to hold the highest student leadership position on campus, and be able to work at such an incredible facility with such great people. The maturity, leadership skills, and overall professional development I have gained through holding this position will absolutely help me perform in my future career. This position has also motivated me in many ways. From a very young age, I have always had a burning passion to achieve a greater purpose. Since ninth grade, I have obsessed over becoming a Navy SEAL. After several health complications, I've questioned my ability to strive for this goal. However, the inspiration and sense of purpose that I have gained through the Op Sup position has reaffirmed this goal tenfold. After graduation, I intend to enlist in the Navy, and take my absolute best shot at BUD/S.

How does this style of course work for you?

Overall, I really enjoyed this style of class. I completely agree that grades and having a good GPA are overrated. So many graduates today are over educated but underprepared to enter the workforce. I have found that many students will study for a test just to retain the information long enough to get a good grade on it instead of truly understanding the information in a way that will allow them to retain it for a long time. It was easy to retain information in this class because there was no pressure from tests or other grades looming over our heads. Furthermore, I find myself becoming very stressed from course loads throughout the semester. The laid-back, stress-free nature

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ISAT 340
12/14/16

of this class definitely appeased much of this stress. However, as I previously stated, it is also easy to put this class on the back burner if other class deadlines are in the back of your mind. If one can keep this in check, this style of course is perfect, but it can be a slippery slope for some.

If you were to take it again, what would you recommend that I do it the same or differently?

In general, I would recommend that you keep the class the same. I know I speak for many students when I say that my stress levels can spiral out of control. This style of course alleviates that stress for many. However, I do believe that there should be at least a few deadlines or grades. To keep students from getting lazy and not putting effort into the class, maybe include several deadlines for deliverables of the course project to be turned in, even if these deliverable are not graded. Furthermore, a few low-value quizzes or homeworks could be given to make sure that students are learning the information as they should be.

What grade would you like for me to report to the registrar for you, and why?

After completing this course, I believe I deserve an A. With the knowledge that I had prior to this class and that I gained throughout this course, I did the best that I could on my semester project, both mine and Akram's. I shifted my focus to helping Akram develop and launch his app. I put a lot of effort into giving him ideas that would help his app succeed and suggestions of how to beat his competition. I did the best job that I could giving him the consumer's point-of-view. Furthermore, I feel prepared to take on the coming IKM courses. Finally, after talking with several students, I believe I have done enough to deserve an A. Originally I was going to ask for a B+ or an A-, but after discussing what other students were asking for, and truly believing I put in more effort than they did for the same grade, I believe an A is justifiable.

End-of-Semester Narrative

Coming into ISAT 340, the title alone intimidated me: “Software Development”. I thought that I would have to take this big leap from what we learned in ISAT 252 and use that to create Software. Needless to say I was very relieved as the semester went by that the process to developing software actually wasn’t that bad. In general, my expectations coming into this class was that I was going to learn how to develop software which is what we did.

Some of the learning goals that I set for myself was to learn how to do everything that was listed on the syllabus. I wanted to learn how to write a problem statement, social context analysis and scenarios, mockups, architecture diagram (both general and specific), entity-relationship diagram and database schema, unit tests and integration tests, source code, and database. I also wanted to explore my options when it came to a certain language or program to use since there are so many to choose from. Over the course of the semester, my goals evolved from a generic perspective to a more specific focus. For example, I wanted to learn about databases, but as we started exploring databases, I wanted to figure out how it all worked, what options did what, and what kind of things can be used in it and how. So what was at first a general idea became more defined over time.

I felt pretty successful when I presented my powerpoint of my app idea because it contained everything we learned up to that point and I felt as if I had most, if not all, of it down. One of my biggest struggles was doing the mockups and the database schema for many reasons. One of the main reason was for my app, I was unsure about all of the items that I would need that would go in a certain block in the database. It took a lot of trial and error but I believe that I ended up getting it and had a solid foundation at least.

I feel as if I failed to achieve the goals that were at the bottom of the syllabus because we didn’t get to. However, there are a bunch of tutorials online that can be watched/follow through in order to learn the steps and processes. Most of the stuff that was not covered was the hard coding part but everything was essentially covered and achieved. From these failures, I learned that there may not be time to do everything intended, but as long as you continue and review the material, it won’t be a total lost. In the future, if there is not enough time to look at something, I will have to make time in order to go out of my way to learn the material.

JMU’s Mission Statement is to produce “educated and enlightened citizens who lead meaningful and productive lives.” I believe that from this class, I absolutely feel more educated. Before taking this class, I knew nothing about the process of developing software. The only reason I knew about databases and MySQL is because of another class in the Telecom Sector that I am taking at the same time as this course. After taking this course, I know the fundamentals of making a software aimed at solving an issue in the real world. I feel more enlightened because through this process, we got to think about things that matter and issues that are important both to us and others. With this mindset, I was able to target an issue and create software to fix this issue.

My activities this semester detracted from knowing myself better and having a better grasp on what I want to do in the future. Reason being is I am currently pursuing a dual concentration in IKM and Telecom but this semester had me second guessing myself at whether

or not I want to go through with the dual or not. But then there is the issue of which sector to choose as a concentration if I were to take that step. Nevertheless, I need to take the break to really take the time to look into my thoughts and try to come up with an answer that will best suit my needs. I am not one to look into the future because I prefer to live in the present, but I can hint at the future and it is very unclear for me.

This style of course worked well for me because it gave me flexibility to work on the course in my own time (within reason). If there were deadlines or grades for certain procedures, the semester would have been a lot different and probably less enjoyable for me. Being a former CS major, deadlines and grades really had a negative impact on how I was engaging the course. Without this factor, I can take the time to learn about what I am being taught without the fear of being punished for not understanding it by a certain time. I can take the time to fully understand what is being offered to me and am not forced to move on to the next topic when I haven't fully grasped an understanding yet. This style allows me to learn all that I can without the pressure of meeting a quota for assignments in a way.

If I were to take this course again, I would recommend mostly to do it the same way. I say mostly because a big part of developing software is actually doing some coding which we didn't get to. It would have been beneficial both for me and the full understanding of the course if we made it all the way to the coding aspect of creating the software. But we practically covered everything else besides that which is great.

This course provided an overview of what constitutes "software" and gave me the opportunity to learn about and demonstrate my capacity to follow the steps and techniques required to develop modern software solutions to various problems. I believe that I have obtained this objective throughout the semester and therefore, I believe that an A- would be a fair grade. I have attended most, if not all, classes as well as occasionally participate in discussion.

Gregory Glasgow

Dr. Morgan Benton

Software Development

Final Paper

What were your expectations coming into this class?

Coming in to the class, especially having had you as a professor last semester, I was expecting a relatively laid back course that explores various aspects of software development. I was also expecting the same style that you used last semester. It focused on showing us the basics, helping us set up the environments, and then letting us problem solve and figure virtually everything else out on our own. I was expecting to have a similar point system followed by a “What grade would you like?” question at the end of a final essay.

What learning goals did you set for yourself?

I wanted to get back into the “I have no idea what I’m doing but I want to figure it out” mindset that I found myself in last semester in 252. That was half-achieved, mostly because the course was taught in a slightly different fashion. Instead of the previous model that forced us to figure things out, we were given tasks and tutorials.

How did your goals evolve over the course of the semester?

My goals changed as our assignments changed. I found myself out of my depth to the point where I really didn’t know the first place to start with my task completion and development. To remedy this, I relied more on the classroom material, tutorials, and instructions that you provided. It was different than 252 because last semester, I had an idea of what I wanted and I knew of specific resources that I could go to and learn how to fix the problems. In this class, we weren’t really presented with problems.

In short, I think it would be the most accurate to say that my goals evolved to just keeping up with what I was being told to do and to do it well.

In what ways did you feel you were successful? Please refer to specific, concrete artifacts that would serve as evidence of your successes.

I think I did complete my goals. I successfully thought of my app, designed its purpose, its screen layout, etc. I designed the database for it and installed the database software onto my computer and learned different commands to help operate it. I think that I attended class more than many of the other students in class. I also like to think that I was successful in that I was one

of the few students to actually do your 10-hour long tutorial/homework assignment when you went on your trip to California. I felt bad that not many people seemed to have completed the assignment.

In what areas do you feel you failed to achieve your goals?

In terms of failures, I think that my worst were relatively minor. Although I didn't have an objectively (or relatively) bad attendance record, I believe that I could have done better. I try and be humble when I think of myself, but I still have a drive to perform better than the vast majority of people. If I don't finish jobs that I take pride in in the top percentage, I feel disappointed in myself. There are, or course, exceptions to this but I like to think that I'm good at using technology. This leads me to my next point. I wish I had gone farther on my project. I think what that would have required would simply be more time and dedication.

Please reflect on what you think you've learned from your failures, and what, if any, plans you have to address those issues in the future.

I think that the biggest thing that I could have done would have just been to spend more time on the course and to take it more seriously. I also think that I need to work on my motivation. I stopped exercising as regularly as I normally do this semester and didn't make going to the gym a priority. This actually made me feel awful about myself and I didn't realize that until later in the semester. In the future, I'm going to actually write down a workout plan and stick with it. My schedule next semester is actually very permitting of me working out after class and I'm excited to start it.

That being said, I didn't have a great semester from a health perspective. Rather early on, I had a pretty bad panic attack that was honestly a scary experience. I had another one later in the semester, although not nearly as intense. To address this, I went to the counseling center to try and revisit some things that were giving me trouble. I think that it helped and that I will do it again with much less hesitation if I ever need to in the future. Also, I was sick for more of the semester than I would have liked and had a relative pass away. These things certainly set back my progress, but I feel more prepared to handle them in the future. I really just needed a pep talk most of the time. Dr. Teel told me that he had just had a similar instance happen in his family and that the president-elect could be described, in the best way possible, as "batshit insane." He told me that the only answer to these sorts of problems were to grit your teeth until the worst of it is over and just keep working.

JMU's Mission Statement is to produce "educated and enlightened citizens who lead meaningful and productive lives." Do you feel more educated? More enlightened? Less so?

I can't say that I feel more enlightened in most senses. However, I feel more curious and creative. There are a lot of social theorists that say that because we are now always mentally

occupied with technology, that we have less of a capacity to produce great works of art. We just aren't thinking about or exploring these subjects enough for it to be as possible as it once was.

Going to the X-Labs and playing with VR for a class was a very cool experience. It opened my mind and got me thinking about the future applications of VR. We also didn't have a lot of things to do in this class. The combination of these things must have been, in a sense, enlightening.

How have your activities this semester contributed or detracted from your knowing yourself better and having a better grasp on what you want to do in the near or distant future?

The combination of this class and then seeing the types of jobs that ISAT students tend to get has made me very aware that I should spend more time becoming familiar with computer science. I wish I had started to apply to jobs earlier (not just last week) and had more of a drive to produce a product at the end of the semester that I could have shown employers.

How did this style of course work for you?

It worked relatively well. I would have liked more, small problem solving assignments like what we had in 252, but I could just be letting my expectations get the better of me. I just felt like I did the work but I didn't get much out of it. I kept up but there really wasn't much to keep up with. The assignments were not difficult and there wasn't a lot of push or incentive to do more than the minimum amount of work to satisfy the assignment.

If you were to take it again what would you recommend that I do it the same or differently?

I think I have one honest critique of the course. The choose your own grade policy may work for some students, but if you market the fact that you literally don't have to do any work for the class to get an A, and then emphasize that students have done this in the past, then you objectively make your class less valuable than all of the other ones, especially to high performing students.

When I say high-performing students, I really just mean students that have a lot of things to do. When you make your work objectively worth less than every single other thing on a student's to-do list, it's always going to be at the bottom. I enjoyed the class, I really did. It was just very hard to rationalize why I would put the effort into this class, when I have seven other things I need to do before I have enough time to eat dinner and sleep.

What grade would you like for me to report to the registrar for you, and why?

I think an A- is appropriate. I certainly could have put a little bit more effort into the course, but at the same time I kept up with everything I had to do and learned a lot. I also think that I did more than the majority of the people in class. I only have anecdotal evidence to support that claim, but I think that in this case, I'm probably not wrong.

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12/14/16

End of the Semester Report

I took this class as an elective out of personal interest after my internship this past summer at the Department of Defense. Our conversation early in the semester grew my interest in exploring different divisions in the security/software field. Particularly, I was excited to learn more about how the development of software doesn't always account for best security practices. This ranged from software which was used in industrial systems, financial records, and data warehouses. Projects which I was exposed to previously had to do with exploitation in all these categories. My expectation was to research into these categories and develop better practices for security assessments. The way I was going to accomplish this was through learning the detailed components of what goes on in the development of the software. Throughout this semester I individually had the opportunity to learn on my own, but also through discussions in class I got to understand some components more in depth. My goals were the same throughout the semester with some diversion into other curious interests in web applications. Additionally, my curiosity grew in understanding the role of postgresql and apache services. As the semester continued I found myself encouraged to learn more and reinforce the skills I knew previously.

The goals which I have achieved this semester went along with my focus in security. Since the beginning I wanted to understand how the development of a security penetration tool can bypass detection. My research conducted that Windows was the more vulnerable OS, due to the background files that ran during start and the necessity of additional files. I started to understand how .dll files were an important aspect of windows and what vulnerabilities they may have. Using Linux, I learned that exploitations were specifically targeted for these files that would grant the user accessibility into their computer. One of these .dll files known specifically as "msver100.dll" is a component needed to run Windows Visual C++. The exploitation of this dll allowed for an undetected payload to bypass windows defender because of the perception that it was allowed in the system. I got to explore the uses of other dll files and their vulnerabilities to perform post-exploitation persistence methods. While, Windows was the main OS for exploitation, I also targeted the MAC OS system to test whether a computer can be compromised. To my surprise, I performed an exploit which took advantage of a PHP exploit for older MAC OS.

I also got an understanding of web applications and how SQL injections can be used to access administrator credentials. The discussions in class about database design and architectures used by companies to store large amounts of data was interesting to learn about. The discussion of different layer protocols and 2nd and 3rd tier architectures was interesting, but also essential to learn about prior to attempting any testing. My research and attempts to bypass credentials was a success through my understanding of the design of a database interface. I learned a great deal from the Lynda tutorial earlier this semester in database commands and the functionalities. The success from performing an assessment like this, was in part because of my familiarity with SQL commands and lack of security

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attention on the end-user's part. Furthermore, my interests branched out in performing other exploitations.

In areas where I wished to achieve further is the use and application of JavaScript. I would have hoped to develop more skills because of its common use in the development atmosphere. I have set a goal to gain a further understanding prior to start my full-time job. Where I would apply my use of JavaScript would be in web application exploitation. The popularity of JavaScript in personal and commercial use is attractive to exploitations that may arise. Will be exploring different ways in learning this language as well.

I believe that some of my attempts to create my own python version of a reverse TCP shell is a work in progress. While I have incorporated other exploits that have already been designed or developed by other people, I hope to see myself in the development side for cybersecurity. I believe that while I was not able to do it I find it a motivation to continue learning how I can best approach the development aspects. I found myself often searching for many answers of GitHub and StackOverflow but being part of this community expands my knowledge base. I will continue to learn from others and hop to enhance my skills for my professional career.

I believe that through this class I got a unique educational experience. Throughout my college career I have been tested on material that doesn't pertain to personal growth, I found this class to be very inspiring. The reason is because it took initiative and motivation to take what was learned in class and apply it to however you choose. Throughout the semester I found myself in positions where our discussions would become prevalent. Specifically, in the career path that I chose there isn't much of a formal education and often requires self-learning and practicing. This class gave me the opportunity to look beyond the scope of a curriculum and adopt my own ideas. I agree with the statement that college is what you make of it. As a senior, I found that the resources that JMU offers with the labs, books, and professors was overlooked in previous years. This year I geared my attention to these resources and found it to be inspiring and hope to share this knowledge with others. What I found especially in the school of business is that it formulates a rigid curriculum that does not promote creativity or innovation. With this class I believe that it was an additional component to my JMU experience.

Throughout this semester I was involved with working with the DOD and believe this class helped as a compliment. What I would be interested in or what I believed was thoughtful to my line of work I attempted to integrate with the class. With a demand surging in the security sector I tried to combine the different technology skills. During some periods of this semester, I would find myself in stressful situations of balancing work and school. This would interfere with what I enjoyed out of my work. The final classes I have taken for my final semester proved to have structured work that required a lot of time and

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not a lot of freedom. While I enjoy my major, I do wish there was more creativity involved in what is taught.

This course I believed worked for me because I knew what I wanted to take out of the class since the beginning. My initiative and motivation going into this was led me to learn as much as possible so that I may apply it to my personal and professional life. I believe that a course like this is almost essential at a senior level because of the flexibility offered to explore other areas. The classroom discussions and exchange of ideas allowed for stress free learning environment. Often I found myself competing in college to the point no one wanted to help each other. As I look back into my college career I would take this class again. I believe it helped with diversifying my college education and allowed for more opportunity. Recommendations that I would make to make this class better is to provide possible guest speakers or demonstrations. What I found most interesting about my college career were the speakers that would visit JMU and talk about their own experiences. I believe this opens a lot of thought into certain career paths that some people may be interested. Also, I believe that while the flexibility was great, there should be more of a structure in what is set to be accomplished on a monthly or weekly basis.

I believe I have accomplished an A in this course. The reason I believe this is because I learned to use the classroom and my personal time as a learning experience. There was never a moment where I disregarded this semester because of how much I got to appreciate the resources of JMU. This class encouraged me to go outside the scope of a curriculum, where I grew as an individual and developed skills on my own. It was a rewarding experience to challenge myself rather than have a curriculum to guide my thinking process. Through this class I learned how to critically think on my own and applied my different thinking processes in different working environments. One of the main takeaways from JMU is that I admire the initiative some professors take on teaching students the ability to “learn how to learn”. In this class, that is exactly what I got to do and it was a rewarding experience when I saw my efforts accomplish my goal. I hope to return to JMU to share my cumulative experience and provide some guidance to those who sometimes are frustrated by the rigidity of their coursework. If possible, in my first years of being involved in the security sector, I hope to provide those who are interested a perspective into what it’s like to work in that field. I also hope in the future to stay in contact with you to maintain a relationship for career opportunities for graduating seniors. Thank you for a wonderful semester!