# Problem 1

What are the two major concerns of any software project?

Which do you feel is more important?

Where does the idea of complete functionality fit with these two concerns?

The two major concerns of any software project are the cost and the time it will take to complete the project. When a customer goes to a software developer with an idea for a project, obviously they are not going to be only focused on what they want. They want to know exactly how much it is going to cost them to get that and how long they are going to have to wait to get it. I wouldn’t say either concerns are most important, because I feel like they both influence each other , if a project does not stick to schedule and goes overtime, the customer will probably have to spend more money.

# Problem 2

In the Agile method for software development, what are the four main phases that occur in each and every iteration? Do you feel that any of them could be done at the start of the project and not be repeated in every iteration? Do you feel that would save time overall on the project? Justify your answers with a brief explanation.

Every iteration of a software project is a like a mini project in itself. Each iteration of the project has its own *requirements, design, coding, and testing.* I feel like the *requirements* section shouldn’t really be a part of every single iteration, maybe at the beginning of a project, on iteration zero, the whole team should meet and a set of requirements for all iterations should be set and could be used throughout the whole process. It would maybe save one day off of every iteration and in the end those days would stack up, so I do think that getting rid of a requirements section for every iteration would save time that could otherwise be used for the other three sections.

# Problem 3

In the Waterfall method for software development, what are the main phases that occur? How are they different from the phases in the Agile method? What other phases are in Waterfall that are left out of Agile? Do you think these are needed in Waterfall? Describe a situation using Agile in which one of these extra Waterfall phases might be needed.

The waterfall method illustrates the project development process in a linear sequential flow, so one phase of the project cannot start until the previous one is complete. The main parts of the waterfall method are *requirement gatherings, system design ,implementation (or coding), integration and testing, deployment,* and *maintenance.* The waterfall method includes two more sections than the agile method: deployment and maintenance. The deployment of the system happens after the testing of the code is complete. The product is deployed into the client environment to see if it behaves the way it is supposed to. The maintenance section comes after it has been deployed into the client environment if any issues are found (these issues are worked on). These could be useful in the agile method because this way you could test out your project in the client environment and then maybe change your requirements after this.

# Problem 4

What is a user story?

When someone hires you to write software for them you have to know exactly what they want you to do for them. A user story is the conversation you have with the customer to find out what they need from you.

What is blueskying?

Talking to multiple people inclusing your customer, your development team, the customer’s team, etc. to come up with ideas for your project

What are four things that user stories SHOULD do?

* Describe one thing that the software needs to do for the customer
* Be written using language that the customer understands
* Be written by the customer
* Be short

What are three things that user stories SHOULD NOT do?

* Be a long essay
* Use technical terms that are unfamiliar to the customer
* Mention specific technologies

# Problem 5

What is your opinion on the following statements, and why do you feel that way:

All assumptions are bad, and no assumption is a good assumption.

A big user story estimate is a bad user story estimate.

When making a project for a customer you should never assume what they want from you, you need to always be communicating with your customer along every step of the development process to make sure that everything that is being done is what they want, so yes any assumption is a bad assumption. The key to everyone being satisfied is communication.

# Problem 6

Fill in the blanks in the statements below, using the following things [you can use each thing for more than one statement]: Blueskying; Role playing; Observation; User story; Estimate; Planning poker.

* You can dress me up as a use case for a formal occasion: \_\_\_\_\_\_\_\_\_USERSTORY\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The more of me there are, the clearer things become: \_\_\_\_\_\_\_ USERSTORY\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* I help you capture EVERYTHING: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_BLYESKYING\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* I help you get more from the customer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_OBSERVATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* In court, I'd be admissible as firsthand evidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_OBSERVATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Some people say I'm arrogant, but really I'm just about confidence: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ESTIMATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Everyone's involved when it comes to me: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_BLUESKYING\_\_\_\_\_\_\_\_\_\_\_\_\_

# Problem 7

Explain what is meant by a better than best-case estimate.

When your team has gathered all the information needed for the development of your project to begin, the team can make an estimation of how much time it is going to take to complete it. To keep your customer happy you need to make sure to prioritize the most important aspects of the user stories so that your estimate of how long it is going to take to develop isn’t way longer than what your customer expects. The better than best-case estimate is the estimate that is like desired, the estimate that would be better than what your customer expects in time and cost.

# Problem 8

In your opinion, when would be the best time to tell your customer that you will NOT be able to meet her delivery schedule? Why do you feel that is the best time? Do you think that would be a difficult conversation?

You should probably talk to your customer about not being able to meet the delivery schedule when you have done absolutely everything you can to try and meet it. You should definitely tell them before it is actually due and not wait until you were supposed to deliver it to tell them it is not done. The best time to do it would probably be around a month before you were supposed to deliver the finished product so that you and your customer can meet to make a new plan. Obviously this is going to be a difficult conversation and your customer is probably not going to be happy but at the end of the day you have tried everything and can’t do it.

# Problem 9

Discuss why you think branching in your software configuration is bad or good. Describe a scenario to support your opinion.

Branching, in version control and software configuration management, is the duplication of an object under version control so that modifications can occur in parallel along multiple branches.

(thank you to Wikipedia for this definition). In my opinion branching is good so that you can go back to previous branches if any mistakes are made or if new requirements are made by the customer you can add new branches.

# Problem 10

Have you used a build tool in your development? Which tool have you used? What are its good points? What are it's bad points?

**Build tools** are programs that automate the creation of executable applications from source code. I have used a build tool called Talend Open Studio for my internship. It is really easy to use because it makes connecting databases look like drawings. I haven’t really used it enough to find any bad points to it mainly because everything I use it for has already been used by professional developers before and they know that it works and I won’t have a hard time using it.