

## Homework 1

### **Problem 1.1**

Requirement gathering  
Low level design  
High level design  
Development  
Testing  
Deployment  
Maintenance  
Post-mortem(wrap-up/debrief)

### **Problem 1.2**

Requirement gathering — finding out what the customer wants and needs

Low level design — The low level design includes information about how a specific piece of the project should work

High level design — The high level design covers every aspect of the requirements, and should specify what the pieces of the project do and how they should interact, but NOT how they do their jobs

Development — Programmers design the refined low level designs in code, while testing and removing as many bugs as they reasonably can

Testing — The cycle of developers testing their code, and having other developers test their code, then if it works properly, integrating that code into the rest of the project, and then testing the new iteration of the project.

Deployment — Launching the new software, and making the necessary adjustments based on problems and issues that arise during the initial usage by customers

Maintenance — Fixing bug that come up, adding enhancements, improvements, and new features according to user feedback as more users continue to use the software.

Post-mortem/Wrap-up — Evaluating and debriefing the project on what went right, what went wrong, what should be changed, and what should be continued.

### **Problem 2.5**

JBGE stands for “just barely good enough”, which is the idea that one should not provide too much documentation, because if one does, they end up wasting a lot of time updating it as you make changes to code.

### **Problem 3.2**

The critical path is G-D-E-M-Q

The tasks are Rendering engine, character editor, character animator, character library, character testing

The total expected duration of the project in working days is 32 days

### **Problem 3.4 (see attached)**

### **Problem 3.6**

Risk management provides a proactive approach to responding to problems, identifying possible risks, determining their potential impacts, and studying possible work-arounds ahead of time.

### **Problem 3.8**

The biggest mistake you can make is to ignore the problem and hope you can make up the time later. The second biggest mistake you can make is to pile extra developers on the task and assume they can reduce the time needed to finish it.

### **Problem 4.1**

Good requirements are:

- Clear
- Unambiguous
- Consistent
- Prioritized
- Verifiable

### **Problem 4.3**

- Business Requirements: A,
- User Requirements: B, C, D, E, L, N
- Functional Requirements: F, H, I, J, K, M, O, P
- Nonfunctional Requirements: G
- Implementation Requirements: None
- There are no implementation requirements since the program being built is not apart of a transition from an old system, therefore there are no temporary features that are needed for a transition that does not exist.

### **Problem 4.9**

#### **MUST**

- Be suitable for all users (color-blindness)
  - Provide dialogues/display messages for whether a letter that is chosen is in the word or not in the word, since someone with color-blindness could have difficulty differentiating a grayed out letter from a green one
- Separation of Concerns
  - Implementing a more clear boundary between the word being guessed and the keyboard. This includes the spacing between the two, and changing the color of the word being guessed and the available letters
- Provide a layout for portrait orientation
  - Allowing users to play in a portrait orientation would allow for one-handed play, and is typically the more familiar and comfortable orientation to hold one's phone

#### **SHOULD**

- Visual redesign
  - Provided that the functionality of the game is there, a change in visual design should be considered. This would include a change in color scheme and adherence to current design trends

#### **COULD**

- Options for Difficulty
  - Providing the user with the option of choosing a difficulty for the random word that is chosen

#### **WON'T**

- Tracking of Wins and Losses
  - Displaying the number of wins and losses the user has had in the current game session

- User Accounts
  - Allow users to login to their account, which would also keep track of wins and progress (leveling up?)
- Multiplayer
  - With user accounts implemented, users could partake in a competition with one another, seeing who can guess the word in the least amount of guesses