**Homework #2: Agile Methods**

**Question 1:**

The word “Agile” is defined as “able to move quickly and easily”, and that is precisely how the Agile Method functions. It is built off short iterations: this is ideal for projects with features that aren’t completely set in stone or have the possibility of changing through out the project. Each iteration can be revisited; whether that be in weeks or months. This can save the company/designer time and money, thus, having a higher chance of meeting the customers expectations and delivering and a timely fashion.

An Agile Methodology, also known as Extreme Programming, was used during the process of the project “IMPRO”, an image processing environment. Some of the characteristics and rules they followed while designing:

1. Outlining the project with the customer
   * This provided them with an understanding of the project.
2. Design Structure
   * Ensuring all those working on the project have to same image and idea for the design.
3. Setting Coding Standards
   * Determined a simple and trivial way to name and use modules that made sense with the IMPRO.
4. Visit Customer
   * This was the second visit: here, they ran their layout and plan with their customer to verify they have the correct thought process.
5. Pair Programming
   * Here, they always had two programmers working side-by-side. This is good for syntax, spelling, etc. This has been proved to boost productivity and reduces bugs.
6. Repeat
   * Visiting the customer often, checking-in that the product is meeting expectations.

They claimed that this project was 100% bug-free, functioning, and delivered on time. It is hard to say that something is 100% even with the best engineers, however, because of the use of the Agile Method, I am sure they came very near to that accusation. Visiting the customer, asking a lot of questions, and communicating contributed to the success of this project. They were able to ensure what they were doing was meeting the customers standards.

**Question 2:**

Now, while Agile is a great tactic when iterations are appropriate, there are instances where Agile would not be the best method; projects with strict deadlines where repetitions aren’t always available, or projects where repetitions would result in more issues than successes. An example of a project less suited for Agile is the building of a bridge. You have your blueprint, you think you have everything worked out, and you instruct people to start building the bridge. You now have the foundation built, and your customer changes their mind about something, resulting in a very wasteful project. With this large project, you’d want to use methods more like the Waterfall Method. Here, everything is determined and finalized immediately. While there is room for negotiation at the very beginning of the project when you’re creating the outline, once the building begins, you don’t want to “iterate”, as this creates problems: resources, money, and time is wasted.