

# Quiz 9: Crystal

**Due** Apr 19 at 11pm**Points** 50**Questions** 11**Available** until May 15 at 11:59pm**Time Limit** None

## Instructions

You **may** use the slides from the lecture and other sources to answer these questions. Please be sure to cite any references but be sure to answer the following questions in your own words. Do NOT simply cut and paste the information from the slides. You will receive a score of 0 if you copy the prose from the slides.

## Attempt History

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	203 minutes	5 out of 50 *

\* Some questions not yet graded

Score for this quiz: **5** out of 50 \*

Submitted Apr 13 at 9:10pm

This attempt took 203 minutes.

### Question 1

**5 / 5 pts**

Match the concept with the definition according to this week's reading assignment:

**Correct!****Methodology**

set of practices or tools

**Correct!****Techniques**

skills needed by the team

**Correct!****Policies**

rules followed by the organiz

**Question 2****Not yet graded / 5 pts**

Describe osmotic communication

Your Answer:

Osmotic communication is when important information is unintentionally transmitted through involuntary overhearing of conversations occurring in the background. This information may be deemed of importance and utilized in the future. It makes the cost of communication to be lowered as the knowledge is passed on quickly and other mechanisms are not as necessary to be implemented. When it takes place, there is a natural flow of inquiries and possible solutions due to which existing errors are corrected in very less time before they become larger concerns. People are aware about the priority of certain work and who has what kind of specific knowledge. The feedbacks are higher in number and are richer due to osmotic communication. Although, it may lead to misinterpretation of a conversation or create a noisy work environment. Osmotic communication can be established when team members are seated in the same room. Here people have the choice to overhear, join the discussion or ignore the conversation. However, this is possible only in small teams. For larger groups, osmotic communication is valuable, but it is difficult to accomplish as colocation in the same

space is not always possible. When teams are dispersed in different places it can be made possible through group chats, video meetings, shared whiteboards, storage drives and a high-speed network. Nonetheless, this is still a far-fetched idea as it cannot completely simulate a single common workspace.

### 3.Osmotic communication (Clear)

See, hear, and absorb information in background

Improves communication across team

All team members are aware of others' work and can help or take over if needed

Goal: communications and community

## Question 3

Not yet graded / 5 pts

What happens at the reflection workshop? What is the analog in Scrum?

Your Answer:

With Crystal methods, the idea of teams holding "reflection workshop" meetings every couple of weeks is encouraged. These workshops help find processes that are and aren't working well and help the team to modify them so that a strategy can be developed that works well for the team. It is used to retrospect the performance of the team during the iteration. It is very similar to spring review in agile. The team discusses various aspects of the project and project team members. They discuss the things which are going well, see if there are possibilities of improvement in the implementation of the project and see what all can be improved to enhance the process. If we take an example of a team who just completed first iteration but not what was expected at the end of the first iteration which was supposed to be four months long, but the team extends they were far behind schedule, demoralized, and with what they recognized as an unacceptable design. Also, same things repeated and at the end of the second iteration, they again were behind schedule but had a design that would hold, and the team structure and programmers were functioning. They held another reflection workshop, made additional changes, and continued. Now many teams usually have a rough start but at the end they are way ahead of schedule and cope up with all the sprints. In a Crystal user group meeting, people discuss what they had experimented with, how they felt about those experiments, and how they evolved their working conventions. One team may report moving the meetings from every two weeks to every month. Analogous to sprints which explains what parts and process are yet to be modified or changed in analogous sprint representative. It makes it easy for the developer to access the data and change it respectively.

Analogous to SCRUM is Sprint Retrospective

Hour-long meeting after each delivery

What are we doing well?

What can we do better?

How can we improve our process?

Hour-long meeting after each delivery

What are we doing well?

What can we do better?

How can we improve our process?

Analogous to Sprint Retrospective

#### Question 4

Not yet graded / 5 pts

Describe two of the strategies of Crystal Clear.

Your Answer:

Crystal Clear can be applied to teams of up to six or eight co-located developers working on systems that are not life - critical. Crystal is comprised of a family of agile methodologies such as Crystal Clear, Crystal Yellow, Crystal Orange.

The two strategies of Crystal Clear are:

1. Exploratory 360: The entire planning of the project is done before the actual implementation of the project. Early requirements and requirement analysis is performed, and requirements determined which are to be delivered in the early iterations. Domain model is also developed, and it is checked whether the project is feasible or not and which requirements need to be prevented. At the start of a new project, usually during the chartering activity, the team needs to establish

- that the project is both meaningful and they can deliver it using the intended technology. They look around them in all directions, sampling the projects. The entire Exploratory 360° for a Crystal-Clear project takes a few days up to a week or two if some new and peculiar technology is to be used. Based on what they learn, they decide whether it makes sense to proceed or not.
2. Early Victory: Winning is a force that binds a team and contributes to the self-confidence of its members. It focuses on delivering the deliverables successfully very early. The team gets motivated for the project implementation and their involvement in the project increases as they feel successful in completing the project. Early Victory strengthens the bond between team members which increases the overall team performance. Although this may not sound like much, team members learn from this small win each other's working styles, users get an early view of the system, and the sponsors see the team delivering.

One strategy of Crystal Clear is the "early victory." This is where the team creates a simple and easy first deliverable. This strategy helps the team gain some momentum and positive reinforcement, as well as a good direction on where the project is going. It also boosts the team's morale and allows them to feel successful.

Another strategy of Clear is the use of information radiators. These are useful in promoting osmotic communication, allowing information/progress to flow simply by being around and looking at the radiator. Some examples would be a burndown chart or Kanban board that helps measure progress and the amount of work still left to do. These items are continuously updated to give the group accurate information.

**Question 5****Not yet graded / 5 pts**

Describe the walking skeleton strategy. What role does it play in the final product.

Your Answer:

In software development, a walking skeleton is a nominal starting execution of an application's architecture which is made up with the connection of basic components of the system. Each subsidiary component is not worked on completely as in the case of the final product but is placed within the larger structure. Hence, it has bare minimum functionality and cannot be sustained as it is not detailed with complexity and comprehensive in its features. It is commonly used in test driven development to prioritize necessary features for the product to work in Minimum Viable Products. Functions such as inquiring data sources, requesting services and conducting basic functions required in the final system must be carried out by the skeleton. Firstly, all the features are to be organized as columns which become the backbone and have all the main features of the product. After this, the corresponding stories are arranged according to importance with more. The programmer must identify the objective on the card and work it through a scenario of a user achieving a job during the role modeling session. There are 20 or more distinct cards that represent a feature or user narrative. The goal of crystal's Role Modeling sessions is to identify the jobs, as well as their duration, sequence, and dependencies. As well as making sure that everyone on the team is aware of each other's work and that they can assist or take over if the other person is feeling well or if there is any emergency. urgent ones closer to the backbone. This forms the minimum implementation of the product which is thoroughly tested and shows the business conceptualization and value of the final product. This system is beneficial for the stakeholders as it leads to quicker prioritization of key features. It helps us focus on the core elements without getting sidetracked by detailing a certain feature of the product. It also gets rapid feedback from the users and the makers get to know its market value. Some shortcomings of the system are that it may exclude some crucial additional features and lack important functional elements. Additionally, the release may be delayed and the stakeholders may try to cut corners and remove some essential features of the product.

Tiny end-to-end version of the system's functionality

Provides a simple model for the user to explore

System evolves from this first architecture

## Question 6

Not yet graded / 5 pts

Describe Crystal's Role Modeling sessions. What's the goal?

Your Answer:

Crystal's Role Modeling sessions are intended to get a better idea of the user experience involved with a specific feature/user story. Crystal's role modeling sessions are most likely the interaction design technique. In software developing, Modeling sessions are playing an important role. It helps to get the best solution with a great understanding of requirements. The range of these sessions can vary from some minutes to a few days. Crystal's role modeling sessions show the design of a feature what the user wants and how they will operate.

Crystal's sessions also include:

Allows teams to work the way they deem most effective

- Facilitates direct team communication, transparency, and accountability
- The adaptive approach lets teams respond well to changing requirements

Every card serves the goal of a feature. Team member communicates with each other to examine each goal. The implemented feature should be closest to the user's requirements is the goal of



Crystal's role modeling sessions. In these sessions, user stories/features are written on small cards. For each card, the team discusses the goal of this card. Then the team walks through a scenario of the user accomplishing a task using said feature/user story.

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### Question 7

Not yet graded / 5 pts

Describe a project that requires Crystal Orange. Why is Crystal Clear not sufficient?

Your Answer:

Crystal Orange is required during the development of check clearance mechanism in banks. Banks hold a substantial competitive advantage when it comes to the depth, timeliness, and personal level of the customer data they possess. Harnessing powerful analytics, agile enables the swift and flexible development of applications that use such data. This practice helps in engaging with and serve customers with more innovative products at crucial moments in customer journeys and life events. Continuously creating and refining such customer-focused products will help banks demonstrate that they know their customers. Understand their needs and can suggest the most relevant mechanics required to be completed at the optimum time. The team size increases due to the complexity of the system and there are many people with clearly defined roles. Due to complexity

and bigger size of the team, many of the techniques in crystal clear are not implemented properly. Documentation is created and project scheduling is performed before the development process starts. The risks increases as we move from clear to red hence the techniques which we use in clear does not stay useful for orange. Proper infrastructure is needed to perform the complex tasks. The tasks to be performed by the product contains high risk and significant impact on the user of the product unlike that of in crystal clear. Due to the differences in the situation which prevails during the development, we cannot use the same techniques for crystal clear and orange.

A project that would require Crystal Orange would be perhaps a startup company that manages all of ones passwords and other secure information. Assuming this system will be used by a large amount of people, this would require a large team to manage. Because of the amount of people involved, a higher amount of organization and roles would be required over what Crystal Clear would suggest. This information being handled must be secure and private, therefore any leak could be devastating to the user. This poses a large risk to the company, and therefore cannot be handled simply with a method like Crystal Clear.

**Question 8****Not yet graded / 5 pts**

Describe two of the techniques of Crystal Clear.

Your Answer:

The two of the techniques of Crystal Clear are: -

1.Reflection Workshop – The team should take an hour to reflect on its working conventions following each delivery. The team members discuss what is working well, what needs improvement, what they will do differently during the next period, what we are doing well or better, and how we may enhance our process during the reflection workshop. Just like a sprint retrospective.

2.Methodology shaping – The approach is established in two steps: The first is project interviews; you'll need to conduct interviews to get information about the team, and you'll be able to develop a small library of experiences in your company that demonstrate its strengths, shortcomings, and themes. The second step is to have a workshop to determine the best approach for this team, with data from the first feeding into the second.

Methodology shaping to define the process, Reflection workshop, Blitz planning/Planning “Jam Session”, Delphi estimation, Daily stand-ups, Agile interaction design, Process miniature, Side-by-side programming, Burn charts,

### Question 9

Not yet graded / 5 pts

How are Crystal Clear and eXtreme Programming similar? How are they different?

Your Answer:

Similarities between Crystal Clear and eXtreme Programming similar are:

Firstly, Crystal clear and eXtreme programming both are intended for small, collocated teams, has frequent delivery, reflective improvement, and osmotic communication.

Secondly, Crystal clear and eXtreme programming both are used for creating and planning programming projects and games.

Thirdly, Easy communication among team members is a must in these two.

Fourthly, both use short sprints or iterations to deliver features incrementally and iteratively.

Fifthly, they are similar and build upon the values and principles of agile.

Difference between Crystal Clear and eXtreme Programming similar are:

Firstly, in XP Changes are allowed during and even after the sprint is ordered to provide better features whereas in crystal changes are only made once the process and budget are finalized.

Secondly, in XP the customer is the owner of the product and sets the priority of stories for iterations. Whereas in crystal the user is owner of the product.

Thirdly, in XP the meetings are driven by the customer. Whereas in crystal the project manager or Coordinator takes down important points discussed during review meetings.

Fourthly, XP can be more productive than Crystal Clear

Fifthly, Osmotic communication is an integral part of crystal clear

Sixthly, reflective improvement and personal safety are completed in crystal

Seventhly, In crystal Access to subject matter experts and users

Similarities: Intended for smaller teams, frequent delivery, reflective improvement, osmotic communication

Difference: XP requires more discipline than Crystal Clear, XP can be more productive than Crystal Clear, It is easier to start using Crystal Clear, It is easy to fall back from XP to Crystal Clear

### Question 10

Not yet graded / 5 pts

Compare and contrast XP's Planning Poker and Crystal's Blitz Planning.

Your Answer:

XP's Planning Poker and Crystal's Blitz Planning both have a similar goal: to create the project's initial plan. While they approach different methods for execution. The planning poker analyzes user stories, while Blitz Planning focuses on specific tasks. In evaluating these items, planning poker does not consider dependencies on other user stories. The team looks at each one as its own, independent item. While in blitz In Blitz Planning, these dependencies are analyzed and taken into consideration when putting together the initial plan. There is also one more important difference between both is that how the move forward in each iteration and the time required in both methods respectively. Therefore, planning poker will plan for fixed duration sprints, where the amount of time allowed for each sprint will not change. Blitz planning assumes variable iteration durations, which will affect how each task is distributed. While there are few similarities such as creation of initial project plans, following basic agile methodology and in this design and planning Include all stakeholders, Executive sponsor, users, developers.

XP's Planning Poker and Crystal's Blitz Planning both have a similar goal: to create the project's initial plan. They are different in execution, however. The planning poker analyzes user stories, while Blitz Planning focuses on specific tasks. In evaluating these items, planning poker does not consider dependencies on other user stories. The team looks at each one as its own, independent item. In Blitz Planning, these dependencies are analyzed and taken into consideration when putting together the initial plan. Another main difference in these two planning methods is the duration of the iteration in question. Planning poker will plan for fixed duration sprints, where the amount of time allowed for each sprint will not change. Blitz planning assumes variable iteration durations, which will affect how each task is distributed.

**Question 11****0 / 0 pts**

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**Correct!**☒ True☐ False**Quiz Score: 5 out of 50**