

# Game Development Methodology -Agent Oriented Agile Based (AOAB) Workshop

Aladdin Ayesh

Rula Al-Azawi

## 1. **What is this workshop about?**

This workshop about introduce new game development methodology and provide a practical skills in order to ensure of the quality and usability of AOAB methodology for both academic and industry sectors. A basic knowledge and some experience with agile and agent oriented software engineering methodology is provide.

## 2. **What is the objective of this workshop?**

This one day training will introduce you to the fundamental principles of Game Development Methodology and practices of Agent-Oriented Agile Base methodology (AOAB). Attendees will participate in many hands-on activities that will help them practice the theory they learn, compare and evaluate. In this workshop, the attendees will learn the principles and values of AOAB and will explore in detail the AOAB life cycle. During the one day session, the attendees will share his years of experience in Game Development Methodologies.

## 3. **Who should participate in this workshop?**

This workshop is designed for people who are responsible for specifying, acquiring, developing, evaluating, supporting and/or managing games, for example: Game Development Team Leaders, Game Development Academic staff, Game Development student, Game Developer, Project Managers of Games in industry area, Expert game development evaluator, Any person interested in the future of game development trends.

## 4. **What is the organizer background?**

## 5. **What is the workshop goal?**

The goal of workshop contains the following:

- Provides a framework for researchers and practitioners in the field of game development methodology.
- The thematic focus on the feedback of the researcher and participate regarding the new game development methodology which is based on Agent Oriented Software Engineering methodology (AOSE) and Agile methodology as important design parameter of our methodology.
- Plan for the future works in game development methodology.
- Assess how professional designers and developments as well as academics and

end users are using the methodology to create and get professional game in the real world.

At the end of workshop, you will learn how to:

- Manage, design, test and develop any game genres
- Model requirements and applications using AgentUML models
- Monitor progress with backlogs
- Increase quality with user and expert evaluation from the first game prototype.
- Maximize team productivity and communication
- Become an advocate in your organization of practical methods to improve game project performance.
- Identify causes of game development problems and drive game design and development performance improvements.

## 6. Our workshop agenda

### Part 1

- Provide an overview of the current game development methodologies and elements.
- Identify the challenges and the academic analysis of these issues.
- Explore the space of difference approach and learn game development principals.
- Explaining the adaptive methodology vs. traditional methodologies
- Encouraging the team to be adaptive
- Creating a safe environment in which the team can explore novel solutions
- Running collaboration games to identify and solve problems

### Part 2

- Developing responses to typical scenarios
- We present in general the concept of Agile development methodology
- We present in general the concept of Agent oriented software engineering methodology
- Compare the difference between adaptive approach such as Agile methodology and predictive approach such as MaSE methodology
- We present the results of recent and ongoing original work.
- Identifying features for development in an iteration
- Determining ideal iteration length
- Identifying development tasks in the Sprint Backlog
- Revising team behavior on the basis of lessons learned
- Identifying Game Development Document (GDD)
- Documenting nonfunctional and system requirements
- Increasing communication with stand-up meetings, task boards and regular reflection

- Maximizing team productivity
- Identify the Agent UML modules such as Goal hierarchy diagram, Agent class diagram, Role model diagram, use case diagram and deployment diagram

### **Part 3**

- The workshop will conclude with a roundtable discussion, questionnaire and will highlight open research question and identify new ways in which game development methodology can deals and understand these issues
- Work on small group to design games based on different methodology.
- Measuring work completed with backlogs
- Identifying best practices for team productivity
- Writing user stories
- Prioritizing and estimating work
- Optimizing Agile teams
- Creating a Product Backlog as a list of requirements and technical issues
- Iterating development through cycles
- Capturing user needs as stories
- Using capacity-based planning to plan progress
- Measuring estimated effort with story points
- Utilize UML diagrams