Questions following Question 6 and Question 7 are associated with the corresponding options of Question 6 and Question 7, respectively. Selecting the corresponding option will display the associated questions.

- 1. Is agile development and related technologies commonly used in your company? (Single choice)
  - Rarely used (0%~10%)
  - Used by a small portion (10%~30%)
  - Partially used (30%~60%)
  - Mostly used (60%~90%)
  - Strongly required (100%)
- 2. In which of the following aspects do you think software products developed using agile methodologies are better than those produced through traditional development processes? (Multiple choices)
  - Flexibility in development process
  - Project planning and control
  - Customer involvement in delivery cycles
  - Dilivery cycle
  - Risk management
  - Documentation and process standards
  - Team collaboration and communication
  - Quality control
- 3. How many members are there in your agile development team? (Single choice)
  - o 1~20 people
  - o 21~50 people
  - More than 50 people
- 4. What large-scale agile methodologies has your team implemented? (Multiple choices)
  - o DAD
  - LeSS
  - o SAFe
  - Spotify
  - Nexus
  - RAGE
  - Other (Fill-in-the-blank)
- 5. What do you think is the ideal team size for implementing agile methodologies? (Single choice)
  - o 1~10 people
  - o 11~20 people
  - o 21~50 people
  - More than 50 people
- 6. In your opinion, which phases of software engineering development have been significantly improved by agile methodologies? (Multiple choices)
  - Requirements Gathering and Analysis
  - Design and Coding
  - Iteration/Sprint Execution
  - Test
  - Review and Retrospective

- Deployment and Delivery
- Continuous Improvement and Maintenance

### At which step of Requirements Gathering and Analysis do you think agile development has brought the improvement? (Multiple choices)

- User Story Writing
- o Requirement Prioritization
- Acceptance Criteria Definition
- Requirement Clarification

#### At which step of Design and Coding do you think agile development has brought the improvement? (Multiple choices)

- Architecture Selection and Design
- Interface Definition and Design
- Algorithm Design and Implementation

### At which step of Iteration/Sprint Execution do you think agile development has brought the improvement? (Multiple choices)

- Task Allocation
- Continuous Integration
- Code Review

#### At which step of Test do you think agile development has brought the improvement? (Multiple choices)

- Unit Testing
- Integration Testing
- System Testing
- Acceptance Testing
- Regression Testing
- Test Documentation Writing

## At which step of Review and Retrospective do you think agile development has brought the improvement? (Multiple choices)

- Iteration/Sprint Review
- Iteration/Sprint Retrospective
- Improvement Action Planning

## At which step of Deployment and Delivery do you think agile development has brought the improvement? (Multiple choices)

- Deployment Planning
- Deployment Execution
- Post-deployment Monitoring

# At which step of Continuous improvement and maintenance do you think agile development has brought the improvement? (Multiple choices)

- Feedback Collection
- Bug Fixing
- Performance Optimization
- Feature Update

- Documentation
- 7. In your opinion, which phases of software engineering development are poorly supported by agile methodologies? (Multiple choices)
  - Requirements Gathering and Analysis
  - Design and Coding
  - Iteration/Sprint Execution
  - Test
  - Review and Retrospective
  - Deployment and Delivery
  - Continuous improvement and maintenance

## At which step of Requirements Gathering and Analysis do you think agile development provides poor support? (Multiple choices)

- User Story Writing
- Requirement Prioritization
- Acceptance Criteria Definition
- Requirement Clarification

## At which step of Design and Coding do you think agile development provides poor support? (Multiple choices)

- Architecture Selection and Design
- o Interface Definition and Design
- Algorithm Design and Implementation

#### At which step of Iteration/Sprint Execution do you think agile development provides poor support? (Multiple choices)

- Task Allocation
- Continuous Integration
- o Code Review

#### At which step of Test do you think agile development provides poor support? (Multiple choices)

- Unit Testing
- Integration Testing
- System Testing
- Acceptance Testing
- Regression Testing
- Test Documentation Writing

## At which step of Review and Retrospective do you think agile development provides poor support? (Multiple choices)

- Iteration/Sprint Review
- Iteration/Sprint Retrospective
- Improvement Action Planning

### At which step of Deployment and Delivery do you think agile development provides poor support? (Multiple choices)

- Deployment Planning
- o Deployment Execution

Post-deployment Monitoring

## At which step of Continuous improvement and maintenance do you think agile development provides poor support? (Multiple choices)

- Feedback Collection
- Bug Fixing
- o Performance Optimization
- Feature Update
- Documentation

# 8. What are the main reasons for the above choices (i.e., not enough support from Agile)? (Multiple choices)

- It is difficult for the team members to communicate with each other
- The requirements are not so clear, and keep changing
- There are not enough good tools
- Enterprise architecture and culture conflict with agile
- Project management is overly complex
- Testing of the product is difficult and inadequate
- Other (Fill-in-the-blank)

#### 9. What do you think of using tools in the Agile development process? (Multiple choices)

- The tools can help the development team better manage the sub-tasks
- The tools can improve the co-ordination and co-operation between team members
- The tools can make some repetitive tasks easier
- The tools can help developers collect and analyze data
- Relying on tools too heavily may result in fewer face-to-face communication
- Some tools may be too complex and have a steep learning curve
- Using tools and following the related procedures strictly may reduce the flexibility and adaptiveness which are key features of agile
- 10. What techniques and tools can deal with the above-mentioned challenges? (Fill-in-the-blank)