Life Cycle Plan (LCP)

LiveRiot Video Editing System and social networking enhancement

Team 04

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Haishan Ye  Requirement Engineer, Life Cycle Planner
Kaiqi Zhang  Feasibility Engineer, System Architect
Mitra, Alok  IIV&V

09/25/2013
# Version History

<table>
<thead>
<tr>
<th>Date</th>
<th>Author</th>
<th>Version</th>
<th>Changes made</th>
<th>Rationale</th>
</tr>
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<tr>
<td>09/25/13</td>
<td>Yang Li</td>
<td>1.0</td>
<td>• Original for CSCI577; Tailored from ICSM OCD Template</td>
<td>• To fit CS577 course content</td>
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<td>10/13/13</td>
<td>Yang Li, Haishan Ye</td>
<td>1.1</td>
<td>• Modified Section 1, 2, 3, 4, 5</td>
<td>• Completion of Exploration Phase</td>
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<tr>
<td>10/22/13</td>
<td>Yang Li</td>
<td>2.0</td>
<td>• Modified Section 5, Add Section 6.1</td>
<td>• Plan for the development</td>
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1. Introduction

1.1. Purpose of the LCP

LCP helps stakeholders to identify tasks in the project and their corresponding timelines. It also helps to point out the roles and skills of members of developer team and describe the complete strategy, artifacts and responsibilities of everyone in the project.

According to the ISCM, every iteration and phase has to be planned and identified before actions are taken. LCP will guide and plan each phase.

Efforts, resources and schedule will be estimated with COCOMO and the results will be listed in LCP.

1.2. Status of LCP

This is the LCP at the Foundation Commitment Package phase (Draft FC Package), with a version number 1.1. This version has removed defects of pervious version and added responsibilities and resources.

For the FC package, this version has set milestones and artifacts each phases, created more detailed and context-related responsibilities & skills and estimated resources.

1.3. Assumptions

- The duration of the project is 12 weeks (Fall 2013)
- There are six on-campus students and a DEN student in the project team
- There will be team meeting and meeting with clients to discuss the progress of the project
- ICSM is being used to guide this project
2. Milestones and Products

2.1. Overall Strategy

The LiveRiot video editing system and social networking enhancement project developed by team 04 will process according to Incremental Commitment Spiral Model. This system is part of the whole program of LiveRiot to build a website as well as an app on iPhone, which provide a platform for people to edit and share videos and audios.

**Exploration phase**
- **Duration:** 09/13/13 - 09/27/13
- **Concept:** In this phase the team focuses on analyzing the requirements of clients and understanding the current system. The develop team would meet clients to discuss the initial scope and operational scopes.
- **Deliverables:** Valuation Commitment Package
- **Milestone:** Valuation Commitment Review
- **Strategy:** One Incremental Commitment Cycle

**Valuation phase**
- **Duration:** 09/28/13 - 10/16/13
- **Concept:** In this phase, the team had two win-win negotiation sessions to identify the win conditions, analyze the detailed requirements, evaluate the risks and prioritize the requirements. After the needs of the clients were clarified and confirmed, certain requirements with comparatively high risks were chosen to be prototyped, in order to control the risks. The prototype included basic UI design and a simple functional real device demo.
- **Deliverables:** Draft Foundations Commitment Package, Project Effort Reports, Progress Reports, Prototype Report, System and Software Architecture Description
- **Milestone:** Architecture Review Boards Foundations Commitment Review
- **Strategy:** Incremental Commitment Cycles for Architected Agile, Meetings, Prototypes

**Foundations phase**
- **Duration:** 10/17/13 - 10/31/13
- **Concept:** In this phase, the team will assess the project status. The changes in requirements will be analyzed, and corresponding adjustments will be made. NDI components will be assessed and development software architecture will be designed. Besides, actual functional prototypes will be built.
- **Deliverables:** Development Commitment Package
- **Milestone:** Development Commitment Review
- **Strategy:** Incremental Commitment Cycles for Architected Agile, Meetings, Prototypes

**Development phase – Construction Iteration**
- **Duration:** 11/1/13 - 11/30/13
- **Concept:** In this phase, a detailed project plan is created. Architectural design of the system will be used to guide the development process. Development team will implement the system
based on the previous prototype. Regular meetings will be held to assess the current risks. Test team will test the current project and core capability drive-through will be performed at the end of this phase. 

**Deliverables:** Transition Readiness Review Package 
**Milestone:** Transition Readiness Review 
**Strategy:** Incremental Commitment Cycles for Architected Agile, Development, Tests, Integrations

**Development phase – Transition Iteration**

**Duration:** 12/1/13- 12/10/13

**Concept:** By this phase, the complete and developed system should be ready. Training will be provided. Development team will provide a training plan, and document a detailed user manual. And the functioning software system will be transitioned.

**Deliverables:** Operational Commitment Review Package
**Milestone:** Operational Commitment Review
**Strategy:** Incremental Commitment Cycles for Architected Agile, Transition, Training

---

### 2.2. Project Deliverables

#### 2.2.1. Exploration Phase

**Table 1 Artifacts Deliverable in Exploration Phase**

<table>
<thead>
<tr>
<th>Artifact</th>
<th>Due date</th>
<th>Format</th>
<th>Medium</th>
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</thead>
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<tr>
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<td>.doc, .pdf</td>
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<td>• Operational Concept Description (OCD) Early Section</td>
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<tr>
<td>• Feasibility Evidence Description (FED) Early Section</td>
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</tr>
<tr>
<td>Bugzilla report</td>
<td>Every Wednesday</td>
<td>Text</td>
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</tr>
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<td>Project Plan</td>
<td>Every Wednesday</td>
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<td>Progress Report</td>
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### 2.2.2. Valuation Phase

Table 2 Artifacts Deliverable in Valuation Phase

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<td>• System and Software Architecture Description (SSAD)</td>
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<td>• Prototype report (PRO)</td>
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### 2.2.3. Foundation Phase

Table 3 Artifacts Deliverable in Foundation Phase

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<td>• Life Cycle Plan (LCP)</td>
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<td>• System and Software Architecture Description (SSAD)</td>
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<td>• Prototype report (PRO)</td>
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### 2.2.4. Development Phase

Table 4 Artifact Deliverable in Development Phase

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<tr>
<td>(QMP) • Test Plan (TP) • Iteration Plan (IP) • Iteration Assessment Report (IAR) • User manual (UM) • Training Material (TM)</td>
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<tr>
<td>Transition Readiness Package: • Operational Concept Description (OCD) • Feasibility Evidence Description (FED) • Life Cycle Plan (LCP) • System and Software Architecture Description (SSAD) • Prototype report (PRO) • Quality Management Plan (QMP) • Test Plan (TP) • Iteration Plan (IP) • Iteration Assessment Report (IAR) • User manual (UM) • Training Material (TM)</td>
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3. Responsibilities

3.1. Responsibilities by Phase

Table 5: Stakeholder’s responsibilities

<table>
<thead>
<tr>
<th>Name/Role</th>
<th>Exploration</th>
<th>Valuation</th>
<th>Foundations</th>
<th>Development-Construction Iteration</th>
<th>Development-Transition Iteration</th>
</tr>
</thead>
</table>
| **Name:** LiveRiot  
**Role:** Client | Primary Responsibility  
- Explain scope and primary requirement  
- Contribute to the win conditions  
- Clarify the problems from development team | Primary Responsibility  
- Assess work artifacts and provide feedback  
- Identify shared vision, goal, and concepts | Primary Responsibility  
- Provide feedback for prototypes | Primary Responsibility  
- Test system development modules  
- Provide feedback of system features | Primary Responsibility  
- Accept the training  
- Prepare for system transition |
| **Name:** Yang Li  
**Role:** Project manager  
Life cycle planner | Primary Responsibility  
- Plan the project  
- Plan the schedule  
- Contact clients  
- Manage client interaction  
Secondary Responsibility  
- Plan project life cycle phases  
- List deliverables  
- Identify responsibilities and skills of team members | Primary Responsibility  
- Create detail project plan  
- Record project individual effort  
- Record project progress  
- Create and follow action items  
- Manage client interaction  
Secondary Responsibility  
- Identify responsibilities and skills | Primary Responsibility  
- Record Project progress  
- Create detailed project plan-Manage client interaction  
Secondary Responsibility  
- Create life cycle plan  
- Assess life cycle content  
- Create detail project plan | Primary Responsibility  
- Manage client interaction  
- Deliver final project artifacts | Primary Responsibility  
- Manage client interaction  
- Deliver final project artifacts |
| **Name:** Haoyu Huang  
**Role:** Feasibility Engineer  
System Architect | Primary Responsibility  
- Assess the risks of the project plan  
- Mitigate risks  
Secondary Responsibility  
- Explore current system design | Primary Responsibility  
- Access and evaluate NDI and NCS components candidates  
Secondary Responsibility  
- Analyze business case  
- Assess and | Primary Responsibility  
- Define technology-independent architecture  
- Define technology-dependent architecture  
- Specify architecture  
Secondary Responsibility  
- NA | Primary Responsibility  
- Identify test plan and procedures  
- Test system | Primary Responsibility  
- Test system |
<table>
<thead>
<tr>
<th>Name: Ye Tian</th>
<th>Primary Responsibility</th>
<th>Secondary Responsibility</th>
<th>Name: Zichuan Wang</th>
<th>Primary Responsibility</th>
<th>Secondary Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role: Operational Concept Engineer Prototyper</td>
<td>- Plan project life cycle phases - List deliverables and team members - Identify responsibilities and skills</td>
<td>- Develop system - Test modules during development and record test case results - Ensure module code modifications are done based on test case results</td>
<td>Role: Operational Concept Engineer Prototyper</td>
<td>- Review the work products/ deliverables - Shaper of project plan - Provide evaluation of work products</td>
<td>- Develop system - Test modules during development and record test case results - Ensure module code modifications are done based on test case results</td>
</tr>
<tr>
<td>Primary Responsibility</td>
<td>- Analyze current system - Identify shared vision - Establish new operational concept - Identify organizational and operational transform</td>
<td>- Analyze and prioritize capabilities to prototype - Prepare development / production environment - Develop prototype</td>
<td>Primary Responsibility</td>
<td>- Analyze current system - Identify shared vision - Establish new operational concept - Identify organizational and operational transform</td>
<td>- Analyze and prioritize capabilities to prototype - Prepare development / production environment - Develop prototype</td>
</tr>
<tr>
<td>Secondary Responsibility</td>
<td>- Design prototype</td>
<td>- Develop prototype</td>
<td>Secondary Responsibility</td>
<td>- Design prototype</td>
<td>- Develop prototype</td>
</tr>
<tr>
<td>Primary Responsibility</td>
<td>- Create operational concept description - Assess operational concept</td>
<td>- Analyze and prioritize capabilities to prototype - Develop Prototype - Access prototype and components - Fix defects</td>
<td>Secondary Responsibility</td>
<td>- Analyze and prioritize capabilities to prototype - Develop Prototype - Access prototype and components - Fix defects</td>
<td>- Analyze and prioritize capabilities to prototype - Develop Prototype - Access prototype and components - Fix defects</td>
</tr>
<tr>
<td>Primary Responsibility</td>
<td>- Create system and software architecture description - Create UML Model</td>
<td>- Create system architecture - Create UML Model</td>
<td>Primary Responsibility</td>
<td>- Analyze and prioritize capabilities to prototype - Develop Prototype - Access prototype and components - Fix defects</td>
<td>- Analyze and prioritize capabilities to prototype - Develop Prototype - Access prototype and components - Fix defects</td>
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<tr>
<td>Primary Responsibility</td>
<td>- Develop system - Fix defects</td>
<td>- Develop system - Fix defects</td>
<td>Primary Responsibility</td>
<td>- Develop system - Fix defects</td>
<td>- Develop system - Fix defects</td>
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3.2. Skills

<table>
<thead>
<tr>
<th>Team members</th>
<th>Role</th>
<th>Skills</th>
</tr>
</thead>
</table>
| Yang Li      | Project Manager, Life Cycle Planner | Current skills:  
- Languages: C/C++, HTML, PHP  
- Website development  
- Schedule management  
- Project planning  
- Progress controlling  
- Coordinating whole team |
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Current skills</th>
<th>Required skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haoyu Huang</td>
<td>Feasibility Engineer, System Architect</td>
<td>Current skills: - Languages: Java, C/C++, JavaScript - Website development</td>
<td>Required skills: - UML - System analysis - Architecture design - Feasibility and risk analysis</td>
</tr>
<tr>
<td>Ye Tian</td>
<td>Operational Concept Engineer, Prototyper</td>
<td>Current skills: - Languages: Objective-C, C - iOS Development</td>
<td>Required skills: - Clear concept of the whole project - Design and modeling</td>
</tr>
<tr>
<td>Zichuan Wang</td>
<td>Operational Concept Engineer, Prototyper</td>
<td>Current skills: - Languages: Objective-C, Ruby - Ruby on Rails - Font-end development - Interface Design</td>
<td>Required skills: - Clear concept of the whole project - Design and modeling</td>
</tr>
</tbody>
</table>
4. Approach

4.1. Monitoring and Control

- Bi-weekly Progress Report
- Bi-weekly Project Plan
- Weekly team meeting
- Weekly meeting with clients
- Bugzilla
- Commitment Review
- Git to manage the version of our project

1.4.1. Closed Loop Feedback Control

We have a weekly Team Meeting as well as a weekly meeting with client to discuss what we did and what we have to finish in the next week. Also we use Basecamp, the widely used web-based project-management tool, to manage the project, create discussion so that we could share materials among all team member and clients as well as discuss questions we meet in the project at any place with others. iMessage, group, WeiChat group and QQ group is built among team members to discuss, which helps a lot. Bugzilla is used, team members report bugs and send it to assignee through Bugzilla.

1.4.2. Reviews

We have weekly meeting with clients to report what we have done and what need improving and changing. Bi-weekly project plan and project report are ways to review. Code review as we build the project. Commitment review is held at each milestone.

4.2. Methods, Tools and Facilities

<table>
<thead>
<tr>
<th>Tools</th>
<th>Usage</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xcode</td>
<td>Provides the platform to develop the project</td>
<td>Apple</td>
</tr>
<tr>
<td>iPhone</td>
<td>The platform to test the app</td>
<td>Team members</td>
</tr>
<tr>
<td>GitHub</td>
<td>Help in manage versions of the project</td>
<td>Open Source</td>
</tr>
<tr>
<td>Heroku</td>
<td>A server program testing service provider</td>
<td>Heroku</td>
</tr>
<tr>
<td>OmniPlan</td>
<td>The tool to make project plan</td>
<td>The Omni Group</td>
</tr>
<tr>
<td>MS World</td>
<td>Used to write documents</td>
<td>MS</td>
</tr>
</tbody>
</table>
5. Resources

- Estimated CSCI577a Effort: 7 team members at 12 hrs/week for 12 weeks
- Total estimated effort – 1008 hrs
- Budget information – $2000
- Project duration – 12 weeks
- Component modules in your development project – app for iPhone
- Programming language used – Objective-C, html, Ruby

Table 6: Module lists and SLOC of each module

<table>
<thead>
<tr>
<th>No.</th>
<th>Module Name</th>
<th>Brief Description</th>
<th>SLOC</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tumblr Share Module</td>
<td>Provide function to share videos on Tumblr</td>
<td>150</td>
<td>2%</td>
</tr>
<tr>
<td>2</td>
<td>Facebook Share Module</td>
<td>Provide function to share videos on Facebook</td>
<td>350</td>
<td>2%</td>
</tr>
<tr>
<td>3</td>
<td>Twitter Share Module</td>
<td>Provide function to share videos on Twitter</td>
<td>180</td>
<td>1%</td>
</tr>
<tr>
<td>4</td>
<td>Friendship Module</td>
<td>To record relationship of users on LiveRiot</td>
<td>400</td>
<td>1.5%</td>
</tr>
<tr>
<td>5</td>
<td>Account Module</td>
<td>The module of login, create account and so on</td>
<td>200</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Featured videos lists</td>
<td>Providing a list of videos, which are tagged with features like “Top 10”</td>
<td>400</td>
<td>2%</td>
</tr>
<tr>
<td>7</td>
<td>Video Tagging</td>
<td>Records users’ tag of videos</td>
<td>350</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 7: COCOMOII Scale Driver

<table>
<thead>
<tr>
<th>Scale Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREC</td>
<td>LO</td>
<td>Since there is no such an app before, the precedent is low</td>
</tr>
<tr>
<td>FLEX</td>
<td>HI</td>
<td>Since the requirement could change sometimes, though the schedule is relatively fixed according to the progress of the arrangement.</td>
</tr>
<tr>
<td>RESL</td>
<td>LO</td>
<td>The architecture design is not clear enough since requirement change over time</td>
</tr>
<tr>
<td>TEAM</td>
<td>HI</td>
<td>Communication is flexible and we cooperate well</td>
</tr>
<tr>
<td>PMAT</td>
<td>NOM</td>
<td>CMM Level = 2</td>
</tr>
</tbody>
</table>
### Table 8: COCOMOII Cost Driver for Tumblr Share Module

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq D/P \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The project is just like other popular app.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such a experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>NOM</td>
<td>Some team members have the experience to develop app on iPhone</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>Some of the team members have the experience of developing app on iPhone</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>

### Table 9 COCOMOII Cost Driver for Facebook Share Module

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq D/P \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The project is just like other popular app.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such an experience though we will try our best</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>PCAP</td>
<td>HI</td>
<td>Some team members have the experience to develop an app on iPhone</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>HI</td>
<td>We have no experience of developing Facebook sharing</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>

### Table 10 COCOMOII Cost Driver for Twitter Share Module

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq D/P \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The project is just like other popular app.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such an experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>HI</td>
<td>Some team members have the experience to develop an app on iPhone</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>The development of Twitter share is relatively</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>
### Table 11 COCOMOII Cost Driver for Friendship Module

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq \frac{D}{P} \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The module is common in usual projects.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such a experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>HI</td>
<td>Some team members have the experience to develop app on iPhone</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>Some of the team members have the experience of developing app on iPhone</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>

### Table 12 COCOMOII Cost Driver for Account Module

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq \frac{D}{P} \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The module is common in projects.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such a experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>HI</td>
<td>Some team members have the experience to develop app on iPhone</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>Some of the team members have the experience of developing app on iPhone</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq D/P \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The module is common in projects.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such a experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>LO</td>
<td>We have not such a experience</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>Some of the team members have the experience of developing app on iPhone</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our</td>
</tr>
</tbody>
</table>

Table 13 COCOMOII Cost Driver for Video Tagging
client have to come school and take the meeting.

<table>
<thead>
<tr>
<th>Cost Driver</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELY</td>
<td>NOM</td>
<td>The project is relatively reliable</td>
</tr>
<tr>
<td>DATA</td>
<td>NOM</td>
<td>$10 \leq D/P \leq 100$</td>
</tr>
<tr>
<td>DOCU</td>
<td>NOM</td>
<td>Documents is based on our project</td>
</tr>
<tr>
<td>CPLX</td>
<td>NOM</td>
<td>The module is common in projects.</td>
</tr>
<tr>
<td>RUSE</td>
<td>NOM</td>
<td>We need to construct the component of Facebook and Twitter</td>
</tr>
<tr>
<td>TIME</td>
<td>HI</td>
<td>If too slow, the app will lose customers.</td>
</tr>
<tr>
<td>STOR</td>
<td>NOM</td>
<td>The space of storage is part of the whole LiveRiot system and it will be enough.</td>
</tr>
<tr>
<td>PVOL</td>
<td>NOM</td>
<td>No frequent great change to our platform</td>
</tr>
<tr>
<td>ACAP</td>
<td>NOM</td>
<td>We do not have such a experience though we will try our best</td>
</tr>
<tr>
<td>PCAP</td>
<td>LO</td>
<td>We have not such an experience</td>
</tr>
<tr>
<td>PCON</td>
<td>HI</td>
<td>We will not change team members during the process of the project</td>
</tr>
<tr>
<td>APEX</td>
<td>NOM</td>
<td>Some of the team members have the experience of developing app on iPhone</td>
</tr>
<tr>
<td>LTEX</td>
<td>NOM</td>
<td>We have the experience of objective-C, HTML and projects of other languages needed for this one.</td>
</tr>
<tr>
<td>PLEX</td>
<td>NOM</td>
<td>The platform is familiar to us</td>
</tr>
<tr>
<td>TOOL</td>
<td>NOM</td>
<td>The tools XCode and others are convenient.</td>
</tr>
<tr>
<td>SITE</td>
<td>HI</td>
<td>We communicate by e-mail and other tools, well our client have to come school and take the meeting.</td>
</tr>
<tr>
<td>SCED</td>
<td>NOM</td>
<td>The schedule is relatively reasonable and it is little possible for stretch-out or acceleration.</td>
</tr>
</tbody>
</table>
**Figure 1** Figure of COCOMOII Analysis Result

![Figure of COCOMOII Analysis Result](image_url)
6. Iteration Plan

6.1. Plan

Our first iteration focuses on constructing the app on iOS 7 and implementing the Facebook share module, Twitter share module and Tumblr share module. This module will provide the function to share videos from LiveRiot app to other SNS platform such as Facebook, Twitter and Tumblr.

In this iteration, we will record our work and plan in DC package.

1.6.1. Capabilities to be implemented

The follows are capabilities we will implement in the upcoming iteration.

Table 15 Construction iteration capabilities to be implemented

<table>
<thead>
<tr>
<th>ID</th>
<th>Capability</th>
<th>Description</th>
<th>Priority</th>
<th>Iteration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Share by Facebook SDK</td>
<td>Use Facebook SDK to implement the function that users could share video on Facebook</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Share on Twitter</td>
<td>Implement the function to share videos on Twitter</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Share on Tumblr</td>
<td>Users can also share videos on Tumblr</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Share by Social Framework</td>
<td>Users could also share on SNS by iOS social framework</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
</tbody>
</table>

1.6.2. Capability to be tested

We plan to test the capabilities through the following process.

Table 16 Construction iteration capabilities to be tested

<table>
<thead>
<tr>
<th>ID</th>
<th>Capability</th>
<th>Description</th>
<th>Priority</th>
<th>Iteration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Share on Facebook</td>
<td>Click on Facebook share button and then login after you fill your Facebook account or with the default one to share the video so that it can be view directly on Facebook</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Share on Twitter</td>
<td>Click on Twitter share button and then login after you fill your Twitter account or with the default one to share the video on Twitter</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Share on Tumblr</td>
<td>Click on Tumblr share button and then</td>
<td>I(HIGH)</td>
<td>1</td>
</tr>
</tbody>
</table>
1.6.3. Capabilities not to be tested

There is no capability we won’t test.

1.6.4. CCD Preparation Plans

We will invite clients and other users to take part in the Core Capability Drive-through.

The team will show users how the app work and each function features that may be implemented and ask about their opinions. The most important part of these function would be the social sharing. We will show them how users can share videos from LiveRiot app to other SNS with comments.

The purpose of CCD is to make sure our current process is on the right way and our clients are satisfied with what we have developed. Also if there is some drawback, we could get the feedback from clients as soon as possible.

To test the current system, we would ask clients for administration on the Website of LiveRiot so that we can get source url of videos from the website. This will be used with our accounts of other SNS as test data of the app.

The following table is the Feedback Form we should get from clients after this CCD:

<table>
<thead>
<tr>
<th>ID</th>
<th>Suggestion</th>
<th>Rate (satisfied) 1-5 (not so good)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;ID&gt;</td>
<td>&lt;opinions of clients&gt;</td>
<td>&lt;value&gt;</td>
</tr>
</tbody>
</table>