Modern Methods in Software Engineering

Homework 2

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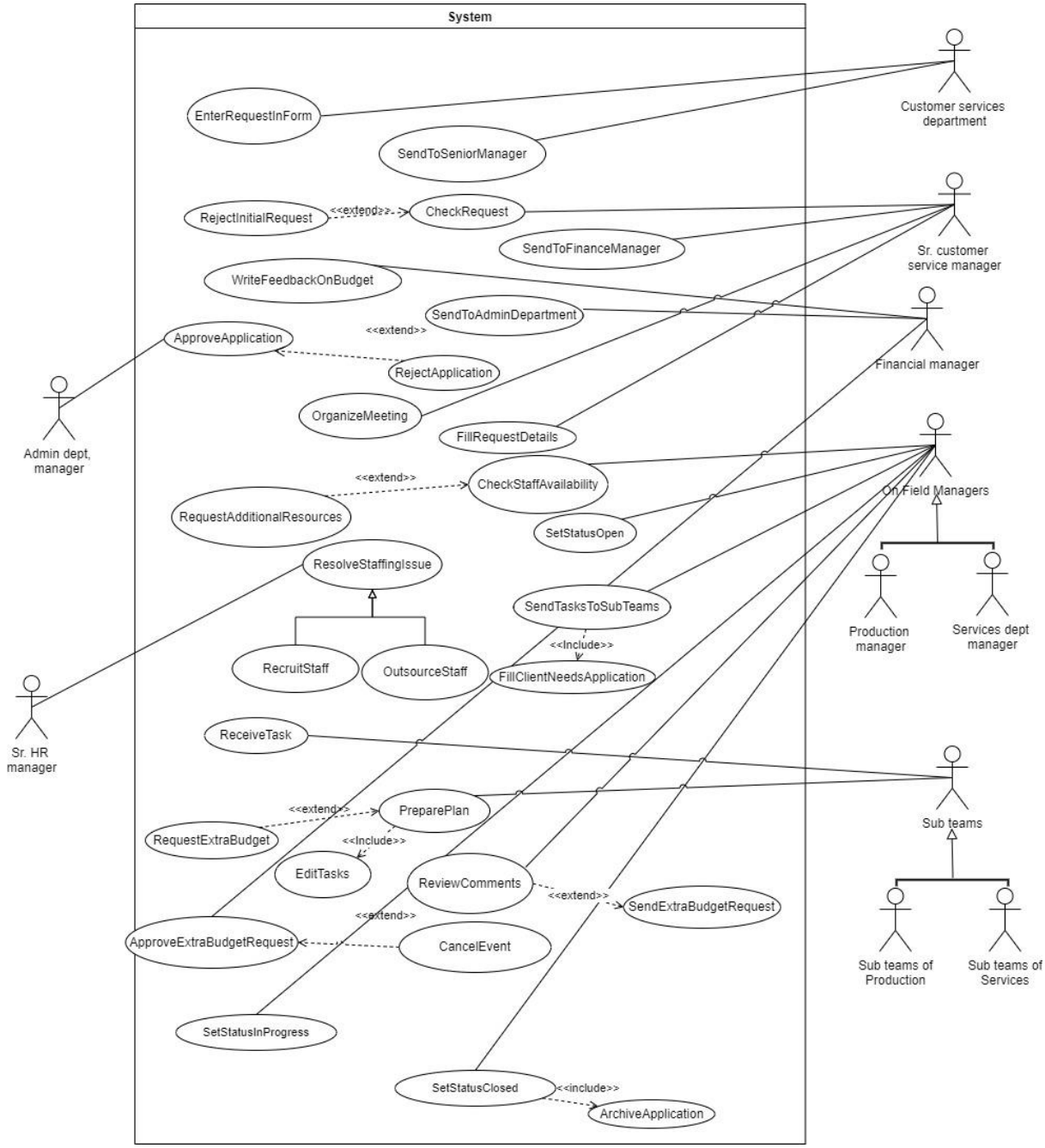
Name: OrganizeEvent
Participating actors: customer service department (Initiator), Sr. customer service manager, financial manager, Administration dept. manager, Production manager, Service dept. manager, Senior HR manager, Production sub-teams, Service sub-teams
Entry conditions: • Client successfully contacts the SEP The use case diagram extends RejectInitialRequest use case for when sr. customer service manager deems the client's application not feasible, RejectApplication use case for when the administration department manager decides to reject the application based on the feedback from financial manager, RejectAdditionalResources use case for when the production manager or the service manager decide that they need additional staff or resources, RequestExtraBudget use case for when the sub teams of production or service department need extra budget, SendExtraBudgetRequest in case service or production managers decide that the team's request is accurate and send it to financial manager, and CancelEvent in case negotiation with the client for extra budget is unsuccessful.
Exit conditions: The requested event has been carried out or rejected.
Quality conditions: The system should work when required and provide effective and convenient communication between different departments.
Event flow: 1) Customer service enters clients request into a form and sends it to sr. manager of the customer service department. 2) Customer service sr. manager approves the form and sends it to financial manager. 3) Financial manager writes feedback on budget and sends it to administration department manager. 4) Administration department manager approves the application. 5) Sr. customer service manager organizes a meeting with the client. 6) Sr. customer service manager fills the client's request details during the meeting with the client. 7) Production and Service managers check staff availability and set application status to open. 8) Production and Service managers send tasks to the sub teams. 9) Sub teams receive their tasks, prepare their plans and edit tasks where needed. 10) Production and Service managers review comments and set the application status to in progress. 11) After the event has been successfully carried out Production and Service managers set the application status to closed and archive the application.



Nonfunctional requirements:

Usability - Users must be able to operate the system without prior knowledge.

Reliability - All the tasks of the system should be performed normally irrespective of the bugs.

Implementation - All users should be able to access the system with a web browser supporting cookies, Javascript, and Java applets. Administration functions used by the operator are not available through the web.

System should run on any edition of Windows past Windows 7 or any commonly used Unix operating system (e.g. MacOS X, Linux, Solaris)

Compatibility with an existing computer system required.

System must run on a computer that is adequately protected by passwords.

Low operating cost - The operator must be able to install and administer the system without purchasing additional software components and without the help of a full-time system administrator.

Extensibility - The operator must be able to add new features and functionalities. Such additions may require the system to be temporarily shut down and new modules to be added to the system.

Scenarios:

Sr. customer service manager deems the client's application not feasible.

Administration department manager decides to reject the application based on the feedback from financial manager.

Production manager or the service manager decide that they need additional staff or resources.

The sub teams of production or service department need extra budget.

Service or production managers decide that the team's request is accurate and send it to financial manager.

Requested budget not approved by the finance manager.

Negotiation with the client for extra budget is unsuccessful.

Glossary:

Unix - an operating system analogous to DOS and Windows, supporting multiple concurrent users.

Linux - an open-source operating system modelled on UNIX.

Mac OS - macOS is a Unix operating system developed and marketed by Apple Inc. since 2001. It is the primary operating system for Apple's Mac computers.

Solaris - Solaris is the computer operating system that Sun Microsystems provides for its family of Scalable Processor Architecture-based processors as well as for Intel-based processors.

Javascript - an object-oriented computer programming language commonly used to create interactive effects within web browsers.

Java applets - Java applets are used to provide interactive features to web applications and can be executed by browsers for many platforms.

UI - the means by which the user and a computer system interact, in particular the use of input devices and software.

Cookies - small files, often including unique identifiers that web servers send to browsers.

Bug - unexpected problem with software or hardware.

Sub teams of Production – teams in charge of Photography, Music, Graphic design, Decorations, Network support.

Sub teams of Services - Top Chef, Senior waitress.

On field managers - Production manager and Services manager.

Admin. Dept. manager – manager of administration department.

Sr. Customer service manager – senior customer service manager.

Initiator – the actor who starts the process handled by the system.

Extra effort: Activity diagram of SEP: