

ID2207- Modern Methods in Software Engineering

Homework 3

Course Coordinator:

Mihhail Matskin

Course Assistant:

Shatha Jaradat

Óttar Guðmundsson and Örn Arnar Karlsson

2017.9.24

1. Identified entity objects (with brief description).

Entity Object (Case 1)	Description
EventRequest	When a <i>NewEventRequest</i> has been approved by <i>SeniorCustomerService</i> , it will undergo a series of feedbacks and approval before being accepted.
Event	-
Task	-
CustomerService	An <i>Employee</i> that provides service to customers <i>Events</i> before they are accepted, during planning and after it has been held.
NewEventRequest	A completed form of <i>ClientDetails</i> that is passed on to <i>SeniorCustomerService</i> and awaits approval
SeniorCustomerService	An <i>Employee</i> that is the head of the <i>CustomerService</i> department. Schedules <i>FirstBusinessMeeting</i> and accepts <i>NewEventRequest</i> .
FinancialManager	-
AdministrationManager	An <i>Employee</i> that oversees the support operations of an organisation and has the final vote of every <i>Event</i> .
FirstBusinessMeeting.	The first initial meeting after <i>EventRequest</i> has been accepted where further information and request regarding the <i>Event</i> are discussed
Entity Object (Case 2)	Description
TaskForm	A form that provides information regarding a certain <i>Task</i> such as description, estimated budget, due date and such.
EventData	Data that has been registered to a defined <i>Event</i> .
VicePresident	An <i>Employee</i> that helps with decision making, finalizing charts, reports and other <i>Tasks</i> .
EventReport	A finalized report about the held <i>Event</i> that includes formatted <i>EventData</i> and description saved to <i>Fileserver</i> .

Entity Object (Case 3)	Description
ProductionManager	A <i>Employee</i> that takes care of delegating and coordinate tasks among <i>Sub-Teams</i> within <i>EventSystem</i> .
EventHomePage	Interface for users of the <i>EventSystem</i> to see upcoming <i>Events</i> , tasks, and projects that they are responsible for or related to.
Sub-Teams	Group of departments that are responsible for providing or delivering and completing assigned <i>Tasks</i> of an <i>Event</i> , such as music, photography, food etc.
ClientRequest	The first initial contact method a client uses to reach out to a <i>CustomerService</i> for a possible event with details regarding the possible <i>Event</i> .
Task	A piece of work to be done or undertaken that is related to an <i>Event</i> in any way.
FinancialRequest	A request the <i>ProductionManager</i> or <i>ServiceDepartmentManager</i> can send to the <i>FinancialManager</i> when they need additional funds for a task.
FinacialManager	A <i>Employee</i> who is responsible for providing and take care of financial related responsibilities and data.

Entity Object (Case 4)	Description
ProductionManager	-
Employee	A person employed for wages or salary that belongs to the <i>EventSystem</i> .
Event	Something that occurs in a certain place during a particular interval of time and is managed within the <i>EventSystem</i> .
HumanResources	A <i>Employee</i> within <i>EventSystem</i> that deals with the people and issues related to <i>Events</i> such as hiring and training.
OutsourceRequest	A <i>Request</i> send to <i>HumanResources</i> about hiring an external person to fullfill and be responsible for a certain <i>Task</i> related to an <i>Event</i> .
EmployeeSchedule	An agenda that belongs to an <i>Employee</i> which defines <i>Events</i> that he is a part of or has a role to fullfill related to it.

2. Identified boundary objects (with brief description).

Boundary Object (Case 1)	Description
CreateNewEventRequestButton	Button used by <i>CustomerService</i> to display a <i>NewClientRequest</i> form.
SubmitNewEventRequestButton	Button used by <i>CustomerService</i> to send a <i>NewClientRequest</i> for to <i>SeniorCustomerService</i> for either approval or rejection.
OpenNotificationButton	Button used by any <i>Employee</i> to display contents of a notification within <i>EventSystem</i> .
CloseNotificationButton	Button used by any <i>Employee</i> to close contents of a notification within <i>EventSystem</i> .
EventRequestNotification	Button used by any <i>Employee</i> to display contents of a Request within <i>EventSystem</i> .
EventApproveButton	Button used by any <i>SeniorCustomerService</i> or <i>AdministrationManager</i> to accept a proposal for a possible upcoming <i>Event</i> .
EventRejectButton	Button used by any <i>SeniorCustomerService</i> or <i>AdministrationManager</i> to reject a proposal for a possible upcoming <i>Event</i> .
ReviewNotification	A notification displayed to <i>FinancialManager</i> about reviewing possible <i>Event</i> to provide financial feedback related to it.
EventForm	A form that is used by <i>SeniorCustomerService</i> and created when <i>NewClientRequest</i> is accepted. Has inputs related to an <i>Event</i> such as name, date, contact, budget, employees and such.
AdditionalFeedbackForm	A form used by <i>FinancialManager</i> to fill in information regarding expected budget and personal comments of a possible <i>Event</i> .
MeetingForm	A form that is used for creating <i>FirstBusinessMeeting</i> or <i>OtherBusinessMeeting</i> by <i>SeniorCustomerService</i> at any time in <i>EventSystem</i> .
MeetingNotification	A notification displayed to any <i>Employee</i> that has been

	assigned to a <i>FirstBusinessMeeting</i> or <i>OtherBusinessMeeting</i> .
Boundary Object Case 2)	Description
NoReportNotification	A notification displayed to <i>AdministrationManager</i> that no <i>EventReport</i> has been created for a just held <i>Event</i> .
TasklistForm	Form used for the creation of Tasks. Can be created and viewed by any <i>Employee</i> .
EventReportNotification	A notification displayed to <i>CustomerService</i> about writing and editing newly created <i>EventReport</i> related to an just held <i>Event</i> .
EventDataRequestNotification	A notification displayed to <i>FinancialManager</i> and <i>VicePresident</i> about providing or editing certain <i>EventData</i> used in <i>EventReport</i> .
EventDataNotification	-
RequestDataButton	Button used by any <i>CustomerService</i> to display contents of a Request within <i>EventSystem</i> .
RequestDataForm	A form used by any <i>CustomerService</i> about reason and permission to gain access to <i>EventData</i> related to an <i>EventReport</i> .
TransferDataButton	Button used by any <i>CustomerService</i> , <i>FinancialManager</i> and <i>VicePresident</i> to send and display data within <i>EventSystem</i> .
LoginForm	Form used for displaying a login screen for <i>EventSystem</i> . Can be used by any person that has access to <i>EventSystem</i> .
LoginButton	Button used by any <i>Employee</i> to request an authentication and authorization to gain access to <i>EventSystem</i> .

Boundary Object (Case 3)	Definition
AssignedSubTeamList	A list of <i>Subteams</i> that have been assigned with a <i>Task</i> that are related to an <i>Event</i> within <i>EventSystem</i> .
CreatTaskButton	A button used by any <i>Employee</i> to create and assign a <i>Task</i> to any <i>Employee</i> within <i>EventSystem</i> .

CreateTaskForm	A form used by any <i>Employee</i> for the input of creating a new <i>Task</i> . Has information such as title, description, due date and estimated cost.
ClientRequestDetailForm	A form used by <i>CustomerService</i> to fill in information from a possible clients about the idea of <i>Event</i> .
SendTaskFormButton	A button used by any <i>Employee</i> to send a <i>TaskForm</i> to another <i>Employee</i> with input that has information regarding a needed <i>Task</i> .
Notification	A single pop up window within <i>EventSystem</i> that can be displayed to any <i>Employee</i> . Can hold information about <i>Requests</i> or <i>Tasks</i> .
FinancialRequestForm	A form used by <i>Subteams</i> or <i>ProducationManager</i> which can be sent to <i>FinancialManager</i> to ask about possible extra budget related to a certain <i>Task</i> .
SubmitFinancialRequestButton	A button used by <i>FinancialManager</i> to accept a request for extra budget related to a <i>Task</i> from <i>SubTeams</i> ..
DenyFinacialRequestButton	A button used by <i>FinancialManager</i> to deny a request for extra budget related to a <i>Task</i> from <i>SubTeams</i> .

Boundary Object (Case 4)	Description
OutsourceRequestForm	A form used to <i>ProductionManager</i> which is sent to <i>HumarResources</i> about possible request of an external <i>Employee</i> to overtake or be responsible for a certain <i>Task</i> related to <i>Event</i> .

3. Identified control objects (with brief description).

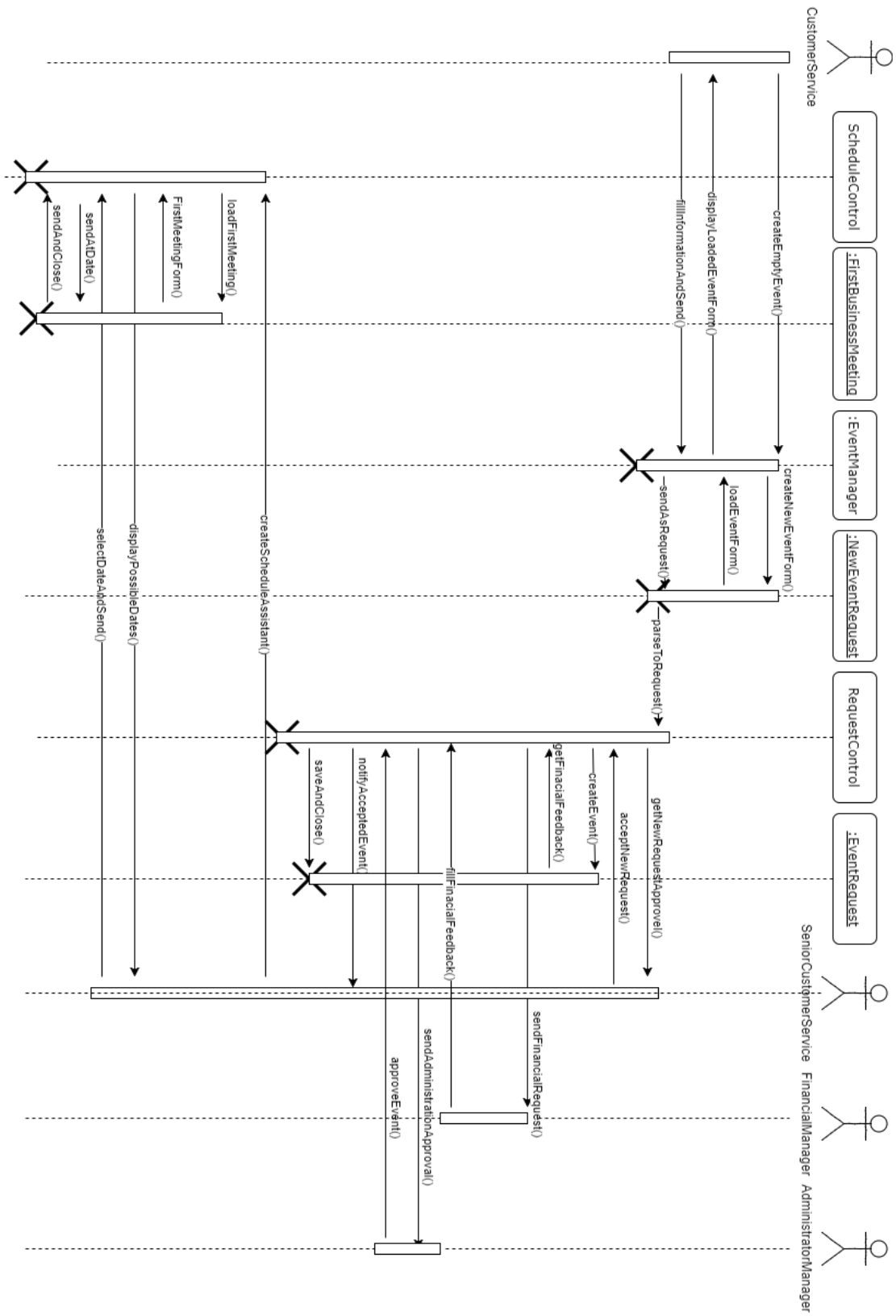
Control Object	Definition
EventControl	Manages <i>EventRequests</i> send and assigned to <i>Employees</i> of the <i>EventSystem</i> . Created every time the <i>EventApproveButton</i> is pressed which changes <i>NewEventRequest</i> to an <i>EventRequest</i> or when <i>EventRequests</i> is approved.
RequestControl	Manages <i>Requests</i> sent between <i>Employees</i> . Created when <i>RequestButton</i> is pressed to generate a new type of <i>Request</i> related to an <i>Event</i> has to be carried out. Can create a new <i>UserControl</i> to find users to assign the <i>Request</i> to.
NotificationControl	Manages the Notifications sent between <i>Employees</i> . This object is created when a <i>Notification</i> is send from and <i>Employee</i> received by another. It creates a <i>OpenNotificationButton</i> and <i>ClosedNotificationButton</i> . If the former one is clicked it displays a <i>Notification</i> when clicked on. Stays displayed until the latter one is created
UserControl	Manages loading and fetching different <i>Employee</i> user info This object is created when a <i>FirstBusinessMeeting</i> is created or when <i>Task</i> or a <i>Request</i> is assigned to any <i>Employee</i> . Also used after <i>LoginControl</i> has successfully authenticated a <i>Employee</i> .
LoginControl	Manages the <i>LoginForm</i> to sign in users in <i>EventSystem</i> . This object is created when the <i>LoginButton</i> is pressed, which tries to authenticate and authorize a valid <i>Employee</i> of the <i>EventSystem</i> . If loaded successfully, it creates a new <i>UserController</i> to get information regarding <i>Employee</i> and destroys itself after.

Control Object (Case 3)	Description
ManageTaskControl	Manages the <i>Tasks</i> . Created every time the <i>CreatTaskButton</i> is pressed. Is responsible for creating the forms needed to create tasks and sending them to the subteams. It is also responsible for the creating and allocating data from the <i>FinancialRequest</i> form.
SubTeamControl	Receives and displays the tasks that are sent to the subteams. It also receives the task edits made by the subteams and allocates the data.
FinancialRequestControl	Receives and displays <i>FinancialRequests</i> that are sent from the <i>ManageTaskControl</i> . It also sends the <i>FinancialManagers</i> answer back to the <i>ProductionManager</i> .

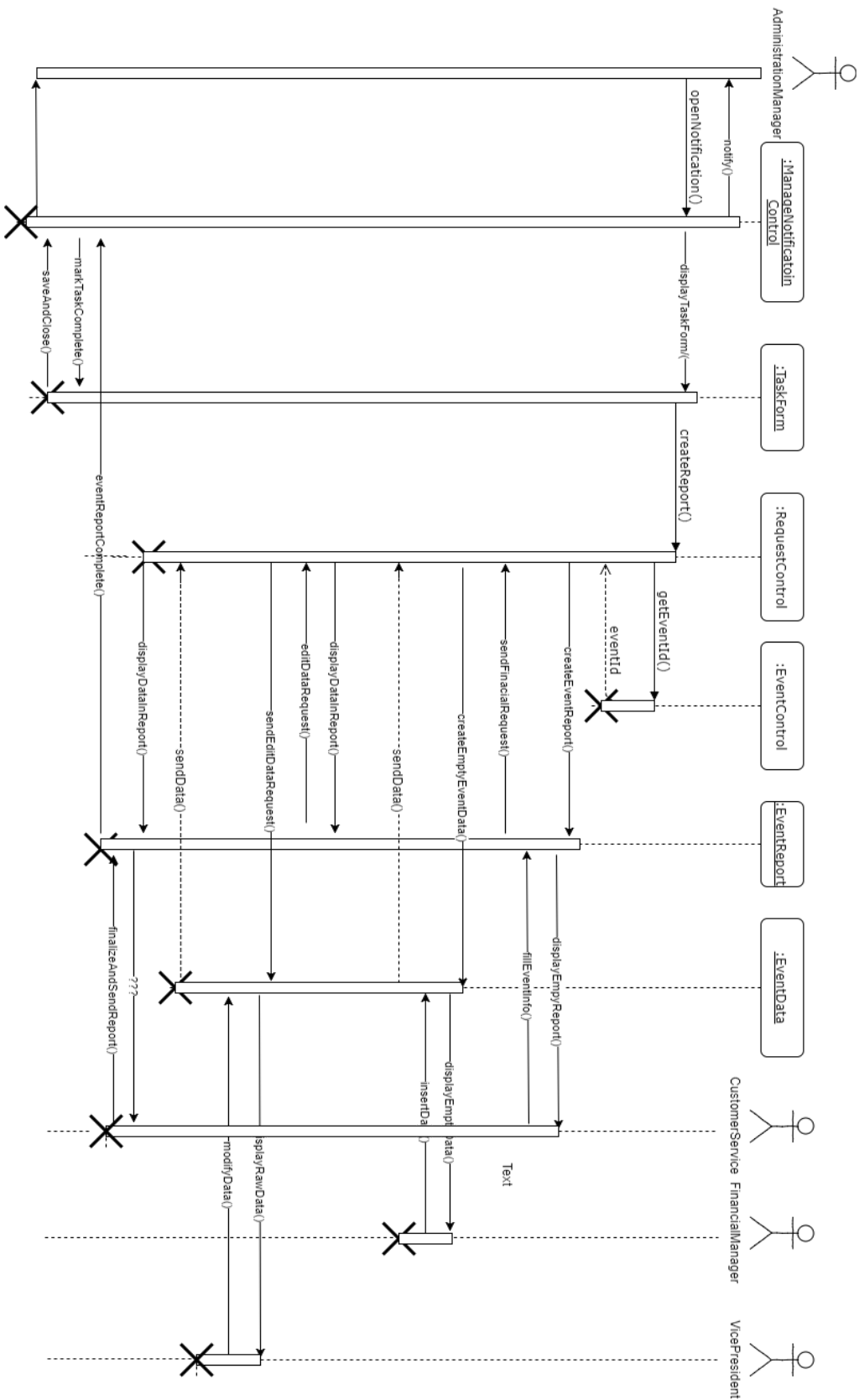
Control Object (Case 4)	Description
ManageSchedulingControl	Manages the <i>Schedule</i> functions used when <i>Employee</i>
OutsourceRequestControl	Creates and manages the <i>OutsourceRequestForm</i> and is responsible for allocating the data that is created by the form.

4. Map the use cases developed in *Homework 2* to the identified objects with sequence diagrams.

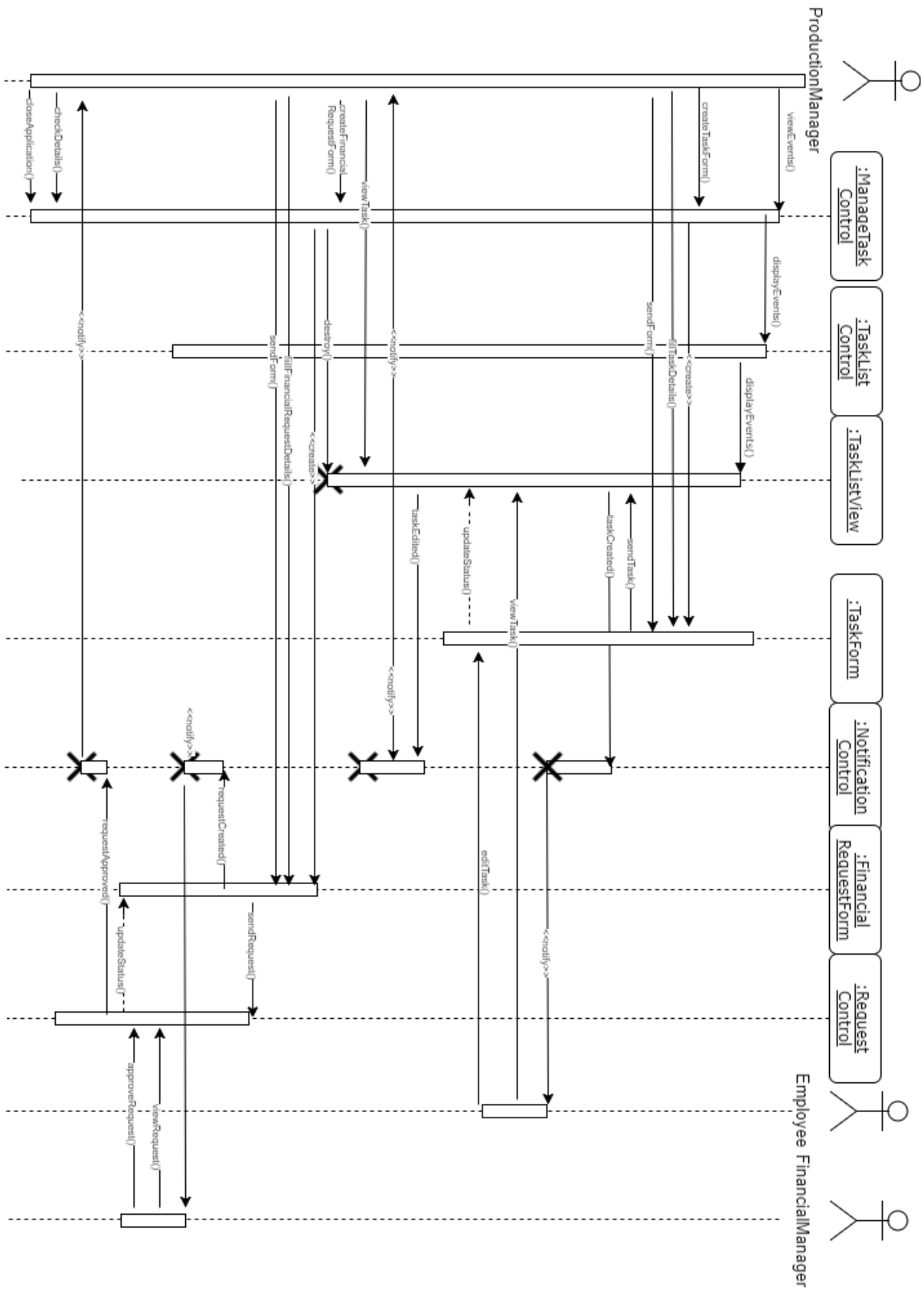
ManageEventRequest



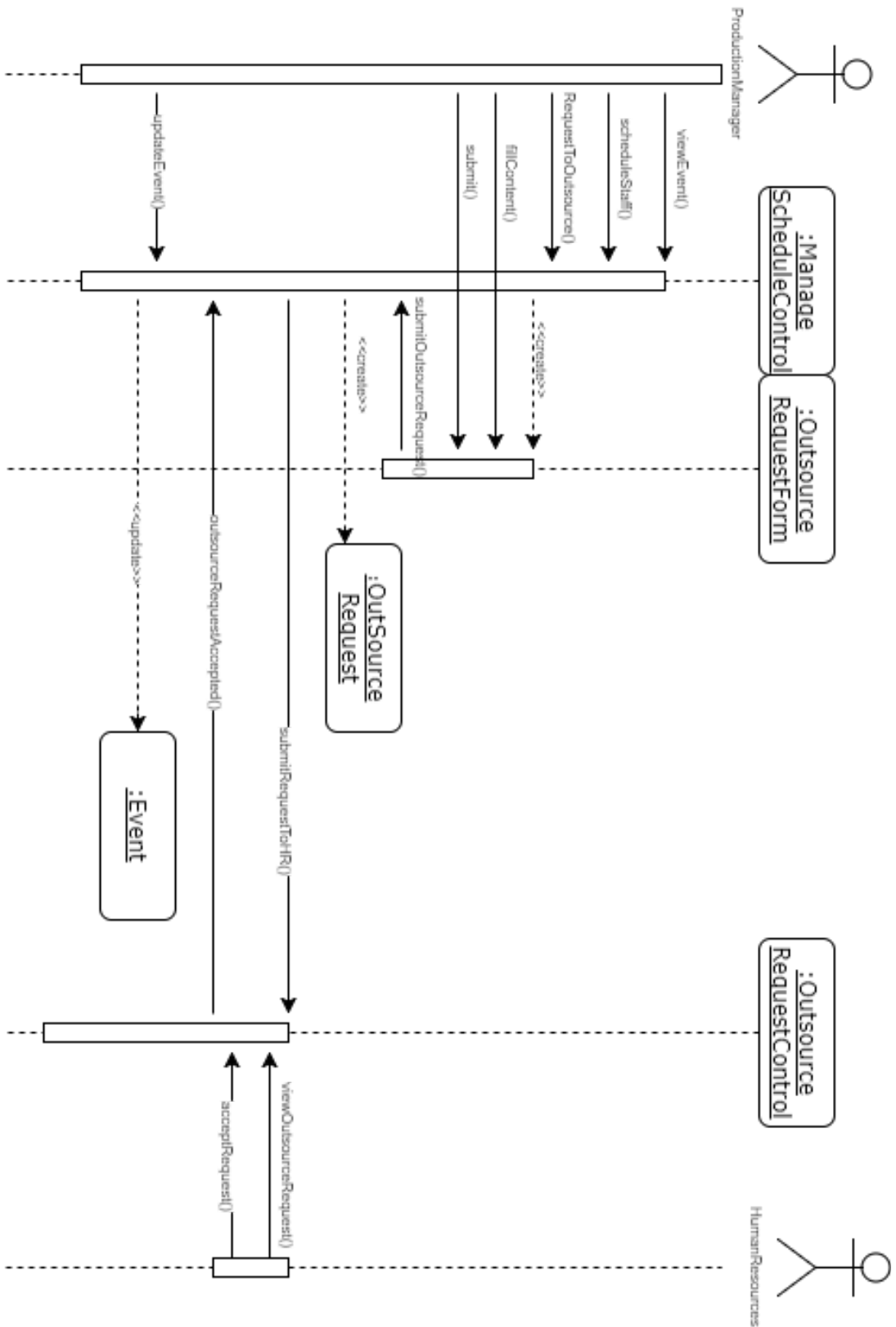
GenerateEventReport



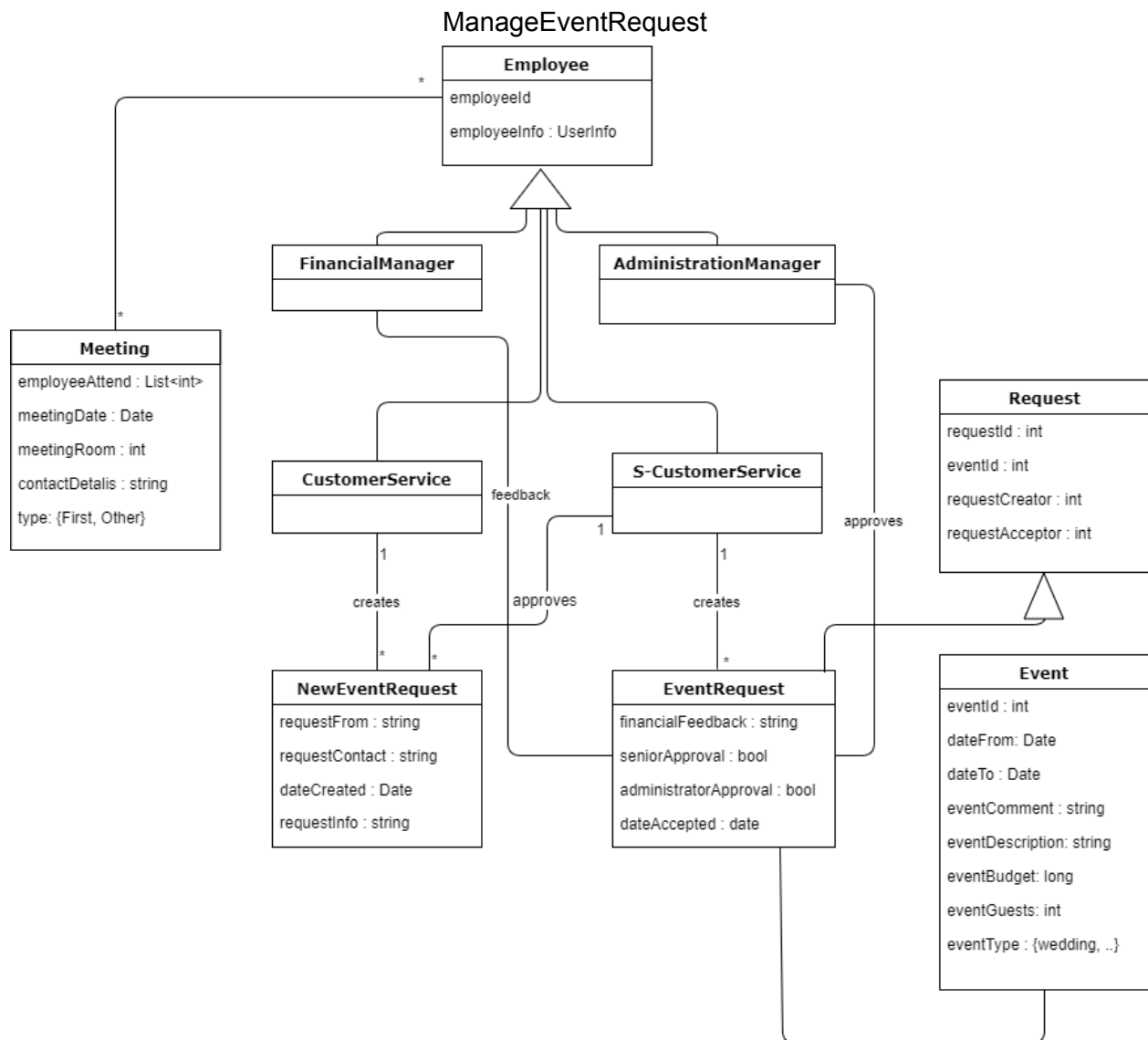
CreateTaskForSubTeams



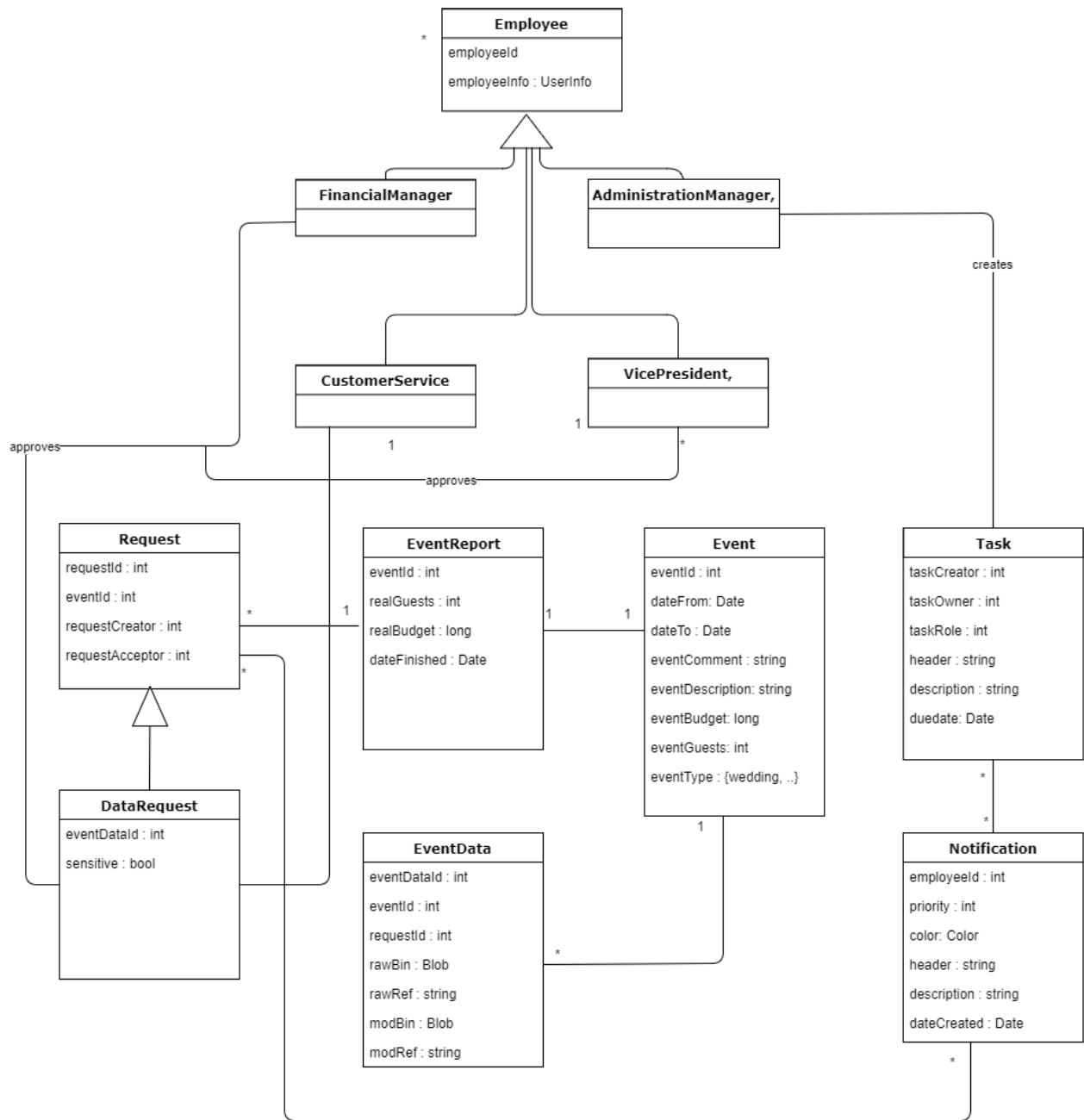
ScheduleStaffForEvent



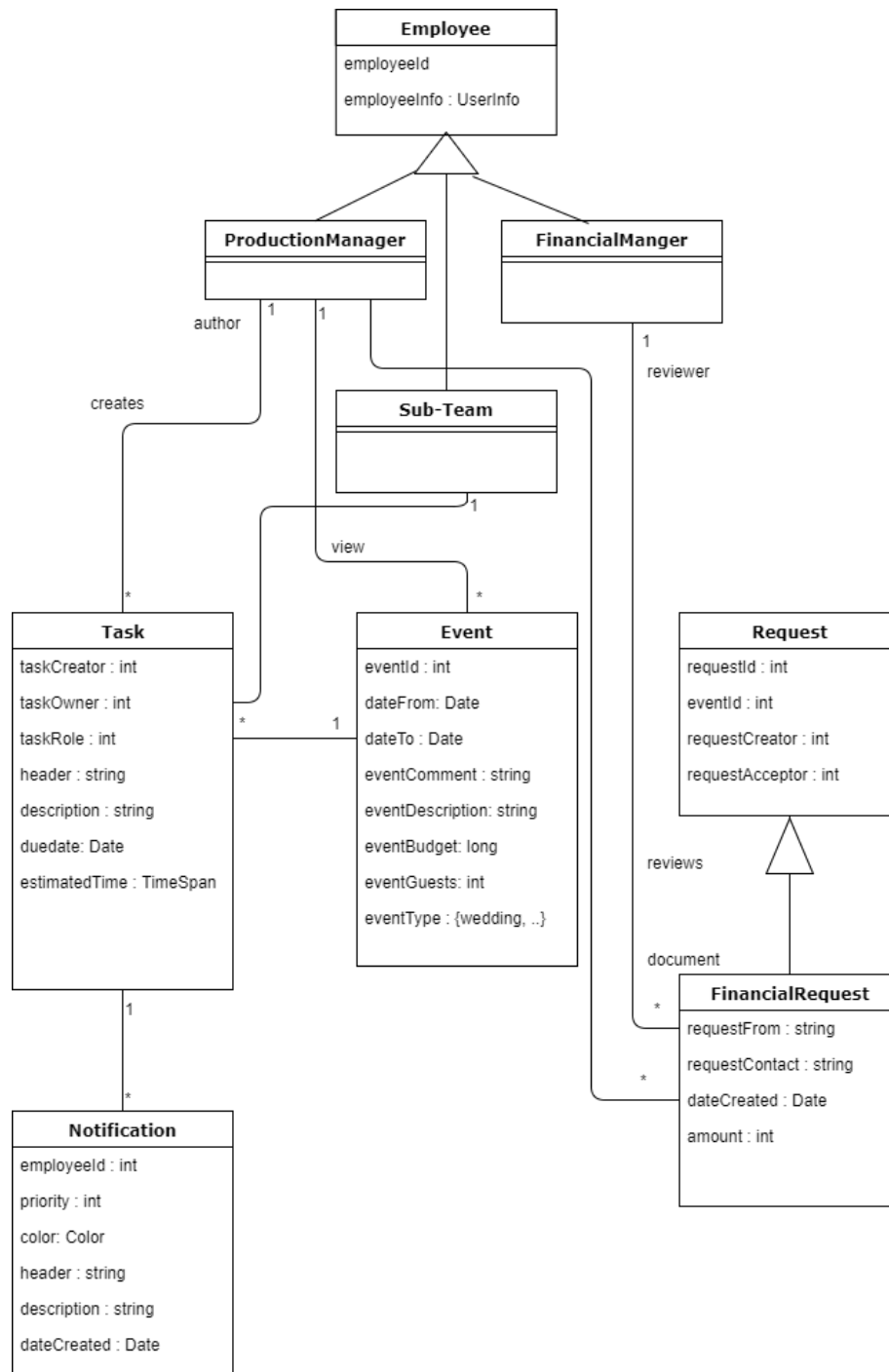
5. Extract UML class diagrams.



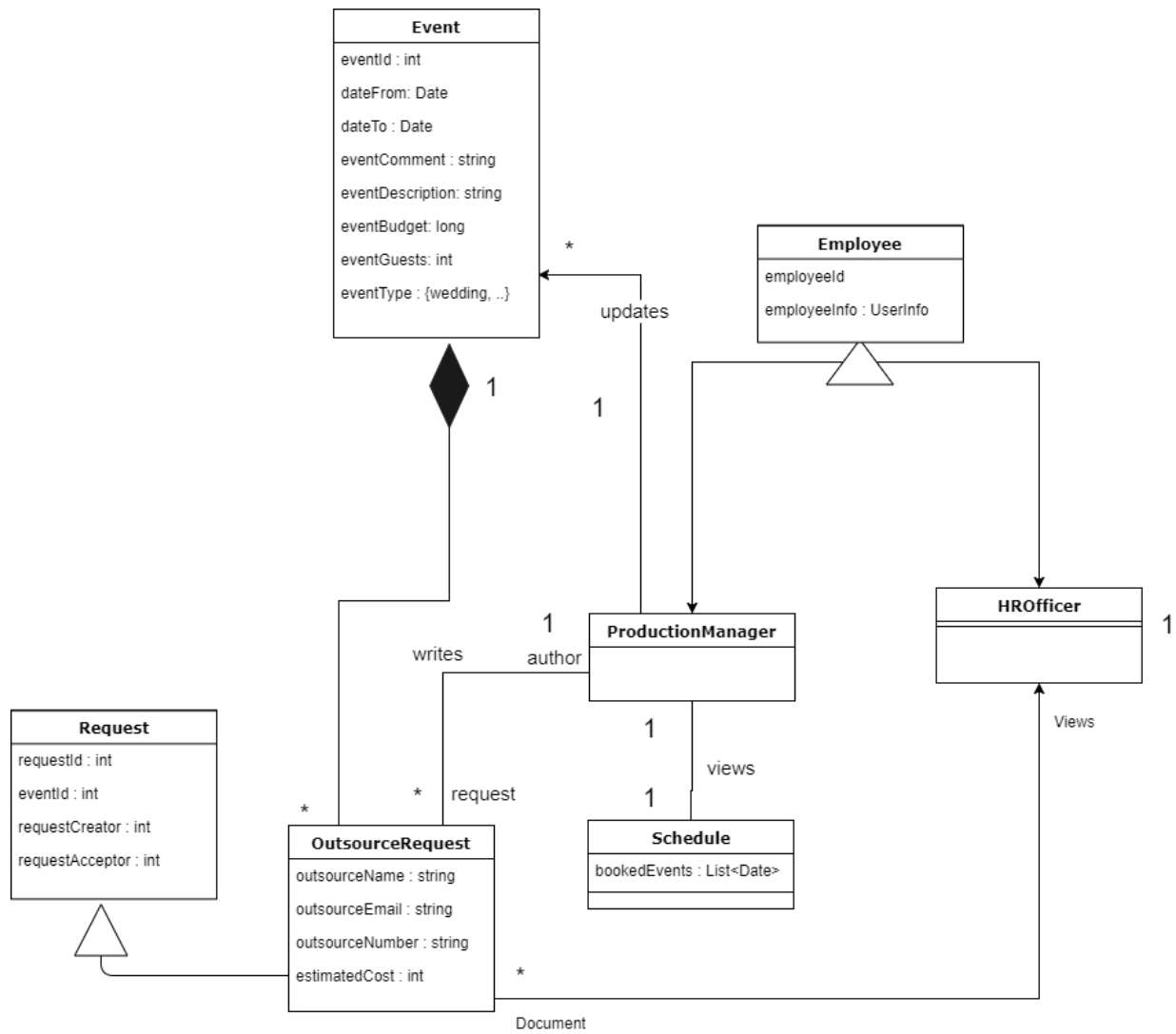
GenerateEventReport



CreateTaskForSubSteams



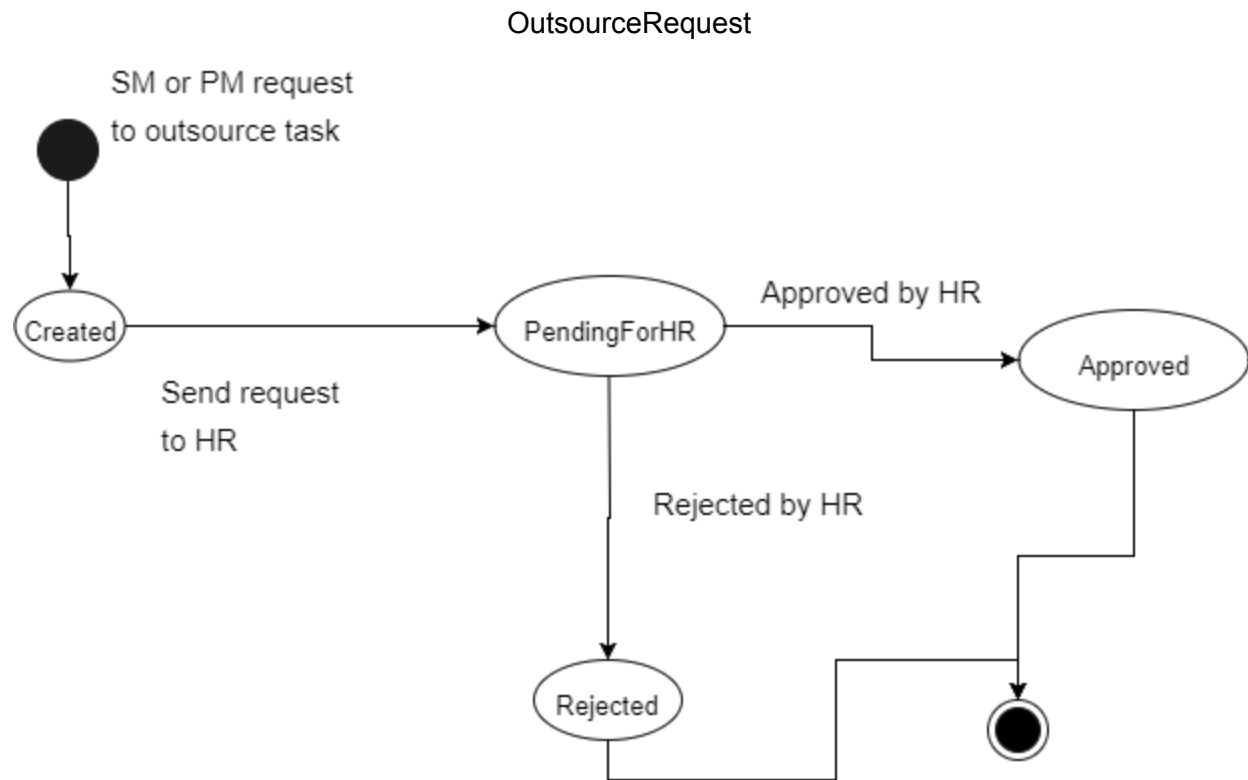
ScheduleStaffForEvent

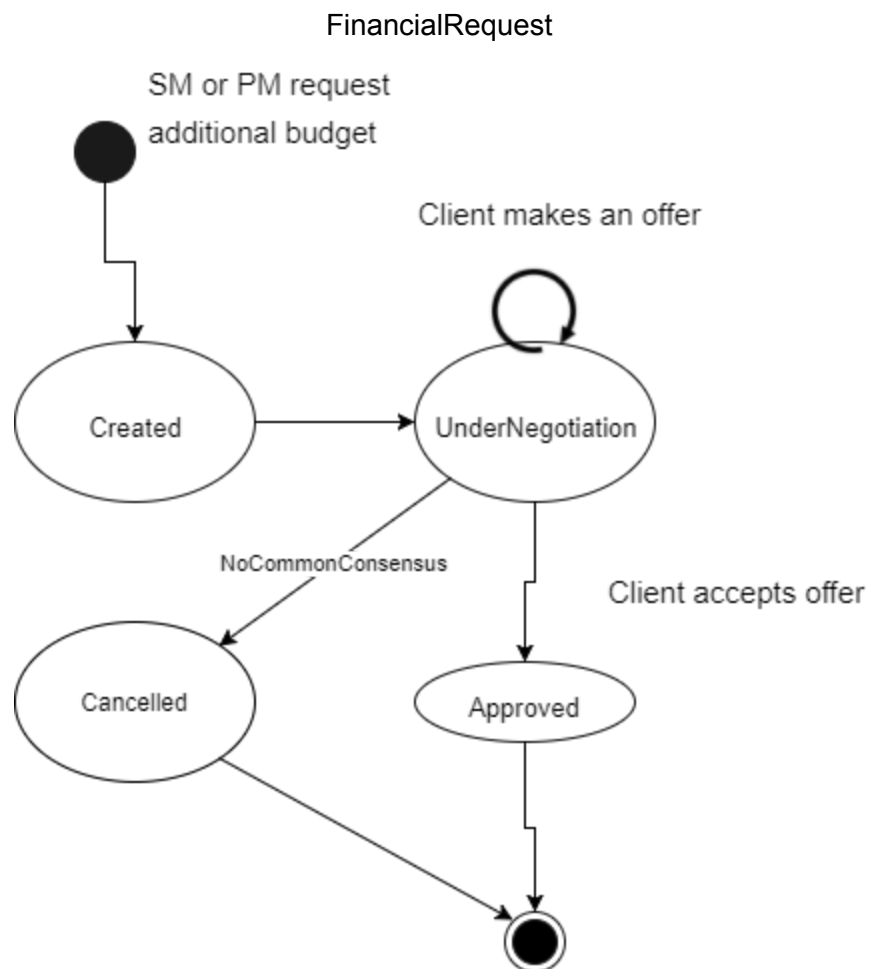
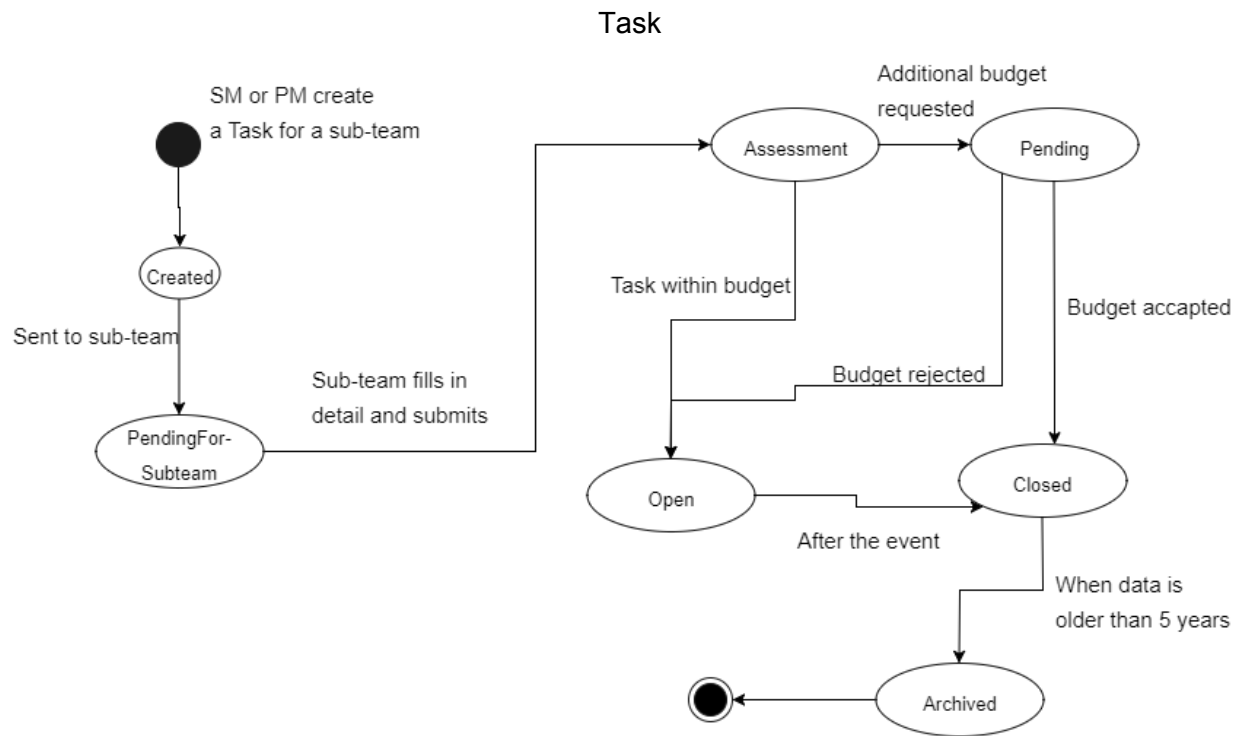


6. Identify relationships among classes of objects identified in steps 1 -3.

Relationships among classes of objects are all presented in the Class diagrams of section 4.

7. State chart diagrams for objects identified in steps 1-3.





EventRequest

