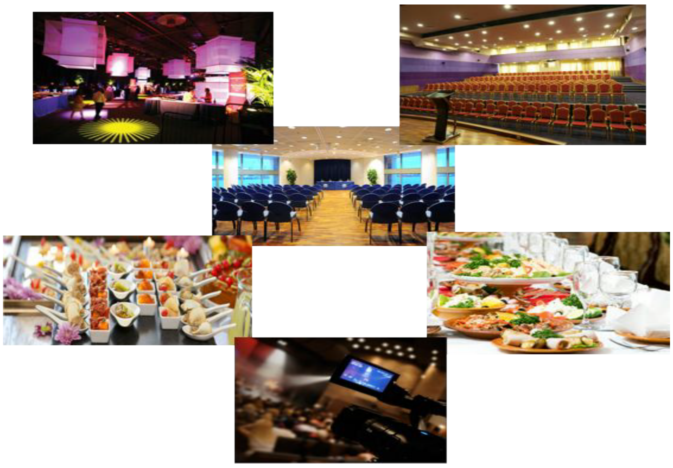
Modern Methods in Software Engineering

Business Case Description For Homework 2,3 and 4

September 2025

Business Case Description

A new events planning company **“Swedish Events Planners SEP”** launched their business in Stockholm. SEP announced for a tender to design their internal system. Your software solutions company **“United Swedish Solutions USS”** participated in this tender and your proposal was accepted ! USS has a very skilled team composed of business analysts, software developers, solution designers, software architects and network support team. You are a member of the business analysts’ team whose purpose is to understand and model the new system.



SEP organizes business events such as workshops, conferences, summer schools … etc. They are responsible of all the details related to the event, for example: decorations, food, beverages, filming, music and many other details. SEP plans everything related to the event from A to Z. SEP handles parallel events according to each event requirements.

You are required to understand the organization’s hierarchy and understand their business. **Mila** is SEP’s representative. She will explain to you SEP’s organization hierarchy and all the details required for the internal system development. She will manage your meetings with the department representatives to understand all the functionalities.

SEP is composed of four departments: **financial**, **administration**, **production** and **services**. The structure of the administration department is shown in **Figure 1**.The number of employees in each department might change according to our organization’s needs, but the structure and job titles remain the same. Our human resources (HR) team: Simon and Maria are responsible of managing staff recruitment, and outsourcing when required. Simon has a wide experience in selecting the most talented employees. Maria (HR assistant) will be responsible of preparing job advertisements, contracts and helping Simon during job interviews. Our customer services team manages the requests for events planning that we receive from clients, and discusses them with the top management. We keep records of our clients and create new records for each new client. Any new request is studied by the senior customer service first, who discusses it with the financial manager, and the administration manager. Our administration manager Mike has 30 years of experience in this domain. He has a wide network of clients, and he cooperates with David, our marketing officer to attract more clients. The marketing officer in our organization attends conferences and business gatherings to meet business persons and company members to advertise our work. He also prepares presentations and demos to present our work. He has an assistant who helps in managing calls with clients and searches for announcements about business meetings.

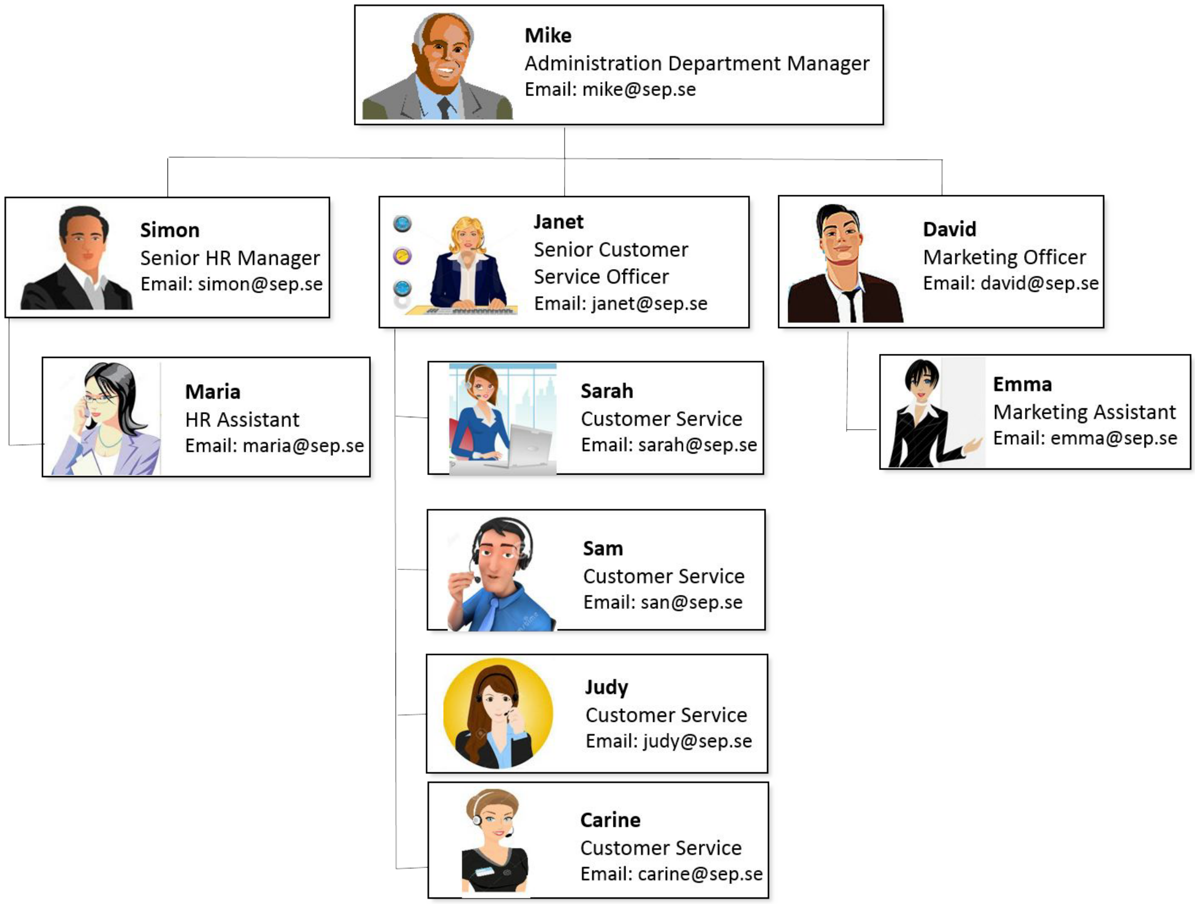


Figure 1: Administration department

Mila

I will give you a brief idea about each department, then I will explain everything in detail. Now, let us move to the financial department. Please look at the department structure in **Figure 2**. The financial department receives applications for events' planning from the administration department. They study the application and negotiate the budget with the client. Alice, our financial manager usually cooperates with Jack, the production manager to plan the required budget for decorations, food, beverages, and photographing. The financial department is also responsible of managing employees' salaries and financial issues. We will meet Alice again while we explain the business.

Figure 2: Financial Department

The most effective departments in our organization are the production and services departments. Now, it is time to look at the structure of production department. Please find it in **Figure 3**. As I informed you before, our organization handles the event from A to Z. To achieve that, we have five sub teams within the production department. Tobias and Magdalena film the events, take pictures, and they can prepare short films as an advertisement for the event. Any event might require special music at the beginning of the event or in the parties that we organize after the event. Our audio specialists team handles all music-related requests. Some clients require posters to present their events. For this and for other needs, we have a team of graphic designers. The other teams handle decorations and any computer-related issues.

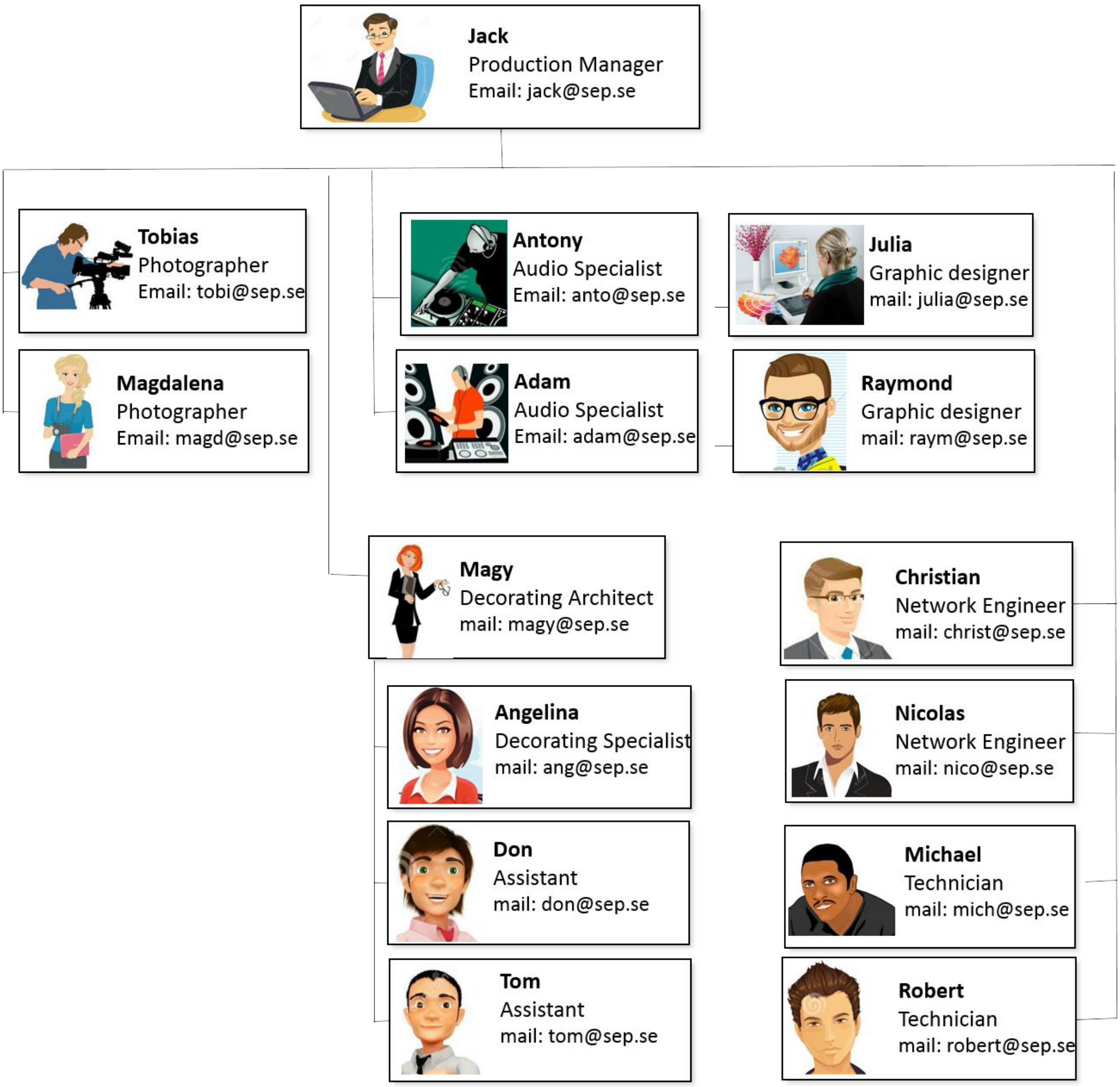


Figure 3: Production department

The services department in our organization handles all the details of food and beverages during the events. We have a group of top chefs and waiters.

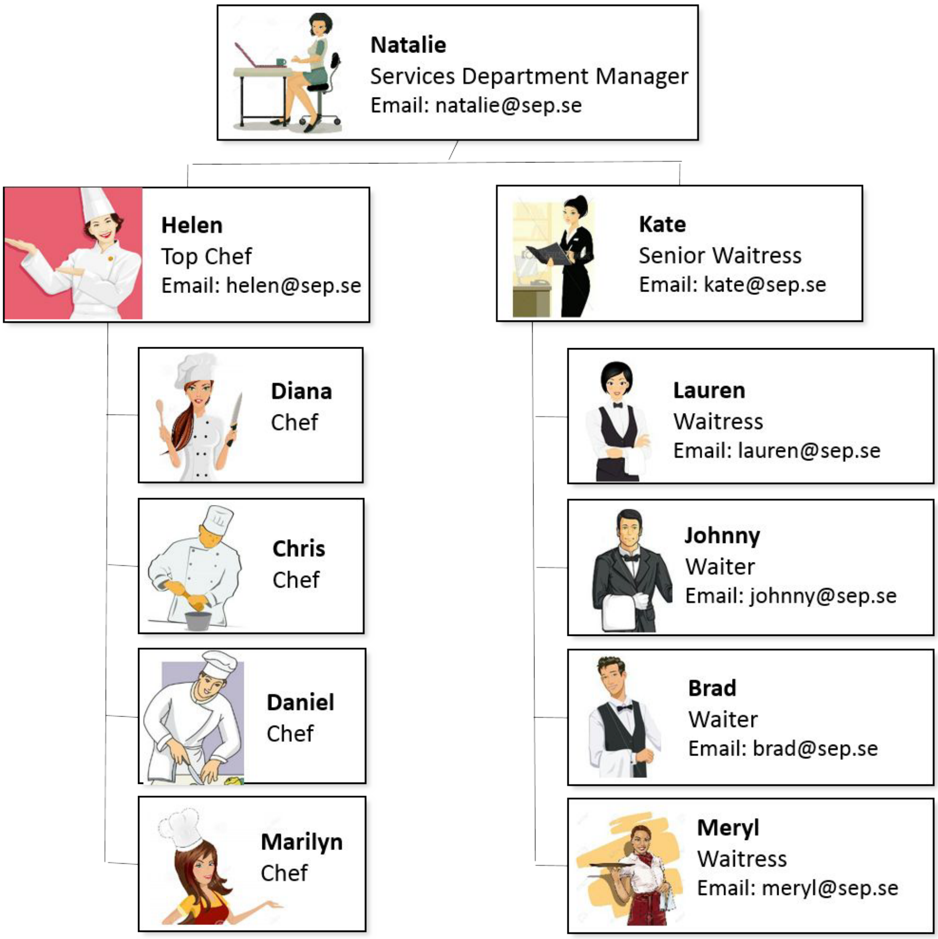


Figure 4: Services department

Finally, I would like to present our vice-president and secretary team. Please look at **Figure 5.** Our VP generates reports about employees' utilization and work progress. He has other tasks as well.

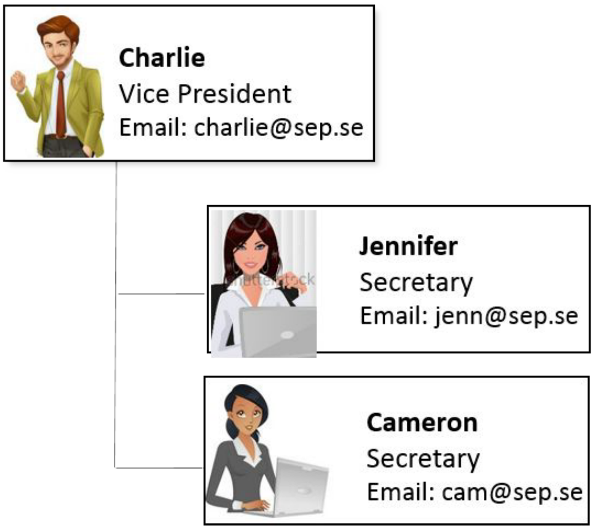
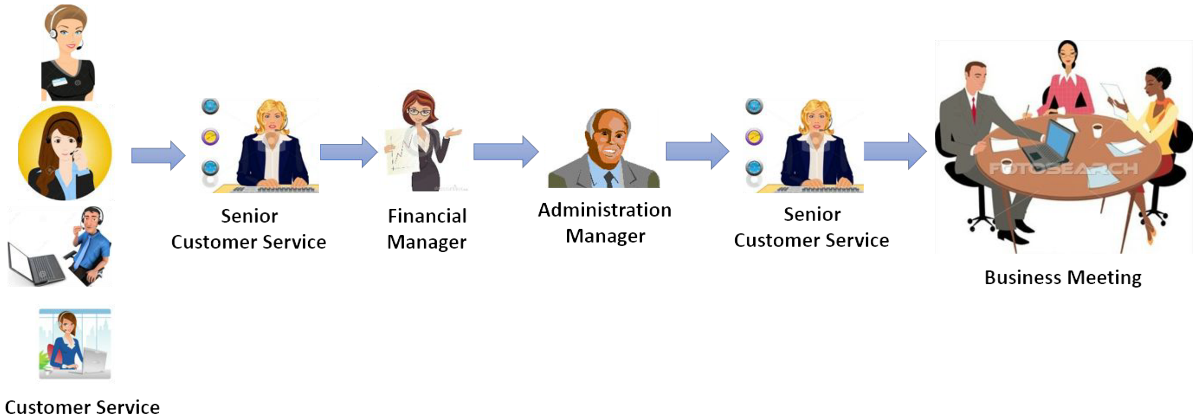


Figure 5: Top management

Mila

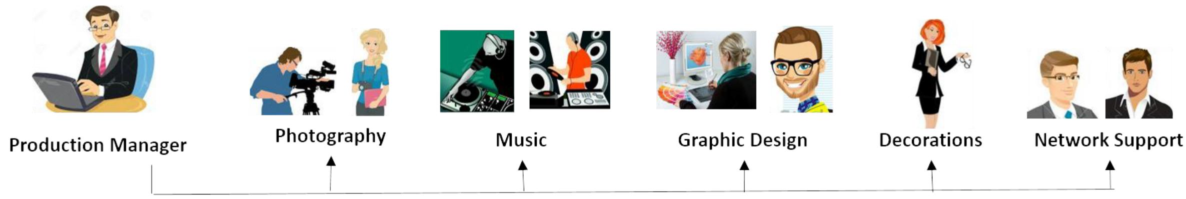
I can explain the business to you through an example. In this example, I will also show the expected system functionalities that your company is required to develop. The request starts when the client contacts the customer service team, who takes the initial data from the clients. Then, they are expected to enter the client's request in a form and send it to their manager, Janet. Janet checks the request, and she has the power to reject it directly if she feels that it is not feasible at all. Otherwise, she reviews it and redirects it to the first reviewer, the financial manager. He writes his feedback based on the estimated budget by the client. The financial manager redirects it to the administration department manager, who decides whether to approve or reject it based on the financial manager's feedback and his expectation. Based on the decision, Janet contacts the client and in case of approval, she organizes a meeting with the client to discuss their preferences and planned budget.



The production manager, financial manager, senior customer service, and services department manager attend the business meeting with the client. In this meeting, the client proposes the initial budget dedicated for the event, their preferences in decoration, food and other things.

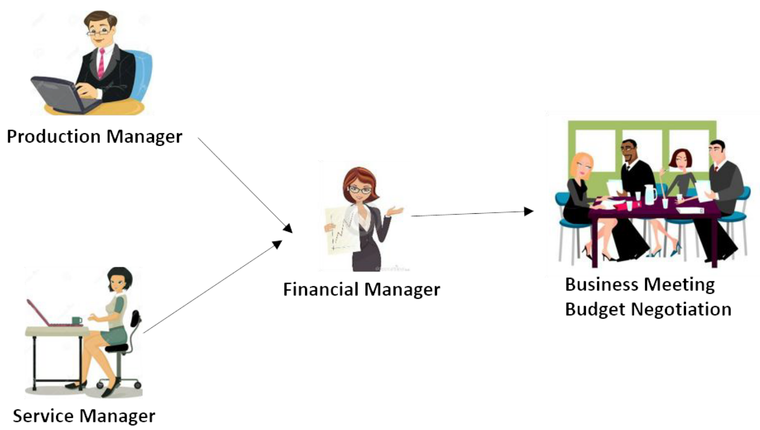
Based on the meeting's results, the production manager checks the availability of the production department staff. In case there are any scheduling conflicts or resources shortage, he initiates a request to the HR team asking for additional resources.This issue might be solved by staff recruitment if there is a need for long term employee or outsourcing depending on the organization's needs. The same scenario can apply for the service manager.

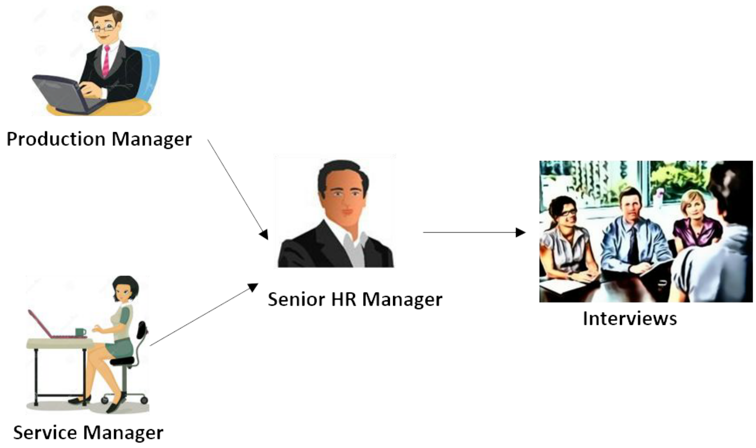
After solving the staffing problems if any, the production manager fills an application with the client needs from his department, and sends tasks to each sub-team. Upon receiving tasks, each sub-team decides a plan for the activities they have to make in the event. They can mention if they need extra budget for the requested items such as decorations or food. At that time, the application status is set to open.



Each sub-team edits the task by filling an expected plan and adding comments for extra budget if required. In the same way, the service manager sends tasks to the sub-teams, who also prepare their plans and add comments if they require external materials or extra budget,

The production manager reviews the comments sent by each sub-team, and based on the results, he can request budget negotiation with the financial manager. The financial manager then negotiates the budget issues with the client. The application will not be processed before the client and the financial department agree on all the budget issues. The same scenario repeats with the service manager.





Once all the budget and staffing issues are solved, the production and service managers edit the application to set its status as in progress. The application's status is set to closed and archived after finalizing the event.

In general, we expect that the system must have:

a. Records of all clients (currently active and previous). Client records compromise of all the events details that were managed by our organization. Sometimes, we make discounts for frequent clients. The system should be able to manage those records and enable search for clients.
b. Any staff member can work in multiple projects. The department manager is responsible of managing the scheduling issues for staff members.
c. History of all organized events must be kept.
d. Records of all the staff members with information related to the assignment history.
e. Scheduling information and staff schedules, so that directors/managers can plan resources for future activities.

Each role in the system must have different view of the system due to the difference in the functionalities they can access. Below you can find a brief summary about each role's possible activities:

Customer Service Officers:

- ❑ Initiate new event planning request, by entering the following details:event type (conference, workshop ...etc), start and finish date, preferences such as decorations, filming, food, beverages … etc.
- ❑ Redirect requests to the senior customer service officer.

Senior Customer Service Officer:

- ❑ Search/View events requests.
- ❑ Create client records.
- ❑ Search/View client records.
- ❑ Receive/Update new event planning requests in the work items list.
- ❑ Redirect event-planning requests to administration or financial managers.

HR team:
- ❏ Search/View employees’ records.
- ❏ Receive/Update requests for hiring/outsourcing new employees.
- ❏ Create/Publish job advertisements

Marketing team:
- ❏ Search/View client records.
- ❏ Generate reports about events’ earnings.
- ❏ Generate reports about clients.

Administration team:
- ❏ Search/View employees’ records.
- ❏ Receive/Update event-planning requests.
- ❏ Generate reports about events/employees/clients.

Financial Manager:
- ❏ Receive/Update event-planning requests with estimated budget details.
- ❏ Search/View clients’ records.
- ❏ Search/View employees’ records.
- ❏ Make discounts for old clients.

Other employees in the financial department have special interfaces but you are not required to understand them. Another business team from your company will handle them.

Production Manager:
- ❏ Receive/Update event-planning requests.
- ❏ Initiate task for each sub-team (decorations, filming, audio … etc) requesting them to submit their plans regarding the new event.
- ❏ Send requests to the HR team requesting hiring new employees or outsourcing.
- ❏ Send requests to the financial department requesting budget adjustments.
- ❏ Search/View staff schedules and assignments

Service Manager:
- ❏ Receive/Update event-planning requests.
- ❏ Initiate task for each sub-team (chefs, waiters) requesting them to submit their plans regarding the new event.
- ❏ Send requests to the HR team requesting hiring new employees or outsourcing.
- ❏ Send requests to the financial department requesting budget adjustments.
- ❏ Search/View staff schedules and assignments

Vice President:
- ❏ Generate summary reports about employees’ utilization.
- ❏ Generate reports about clients and events’ statistics.
- ❏ Request reports from financial department about the organization situation.

There could be a number of other things, which can be done, but we limit our problem to this description only!

Mila

I can give you the following paper forms to help you understand the fields we need in our online forms. The first form is used by the customer service when they fill the initial information about the client.

Please note that these are only samples from the needed forms ! There are other required forms for the system to work. Those are only to help you in understanding the required data.

Request for Event Planning

(For registered clients)

Record number: ____

Client name: ____

Event type: ____

From: / / To: / /

Expected number of attendees: ____

Preferences

- ☐ Decorations
- ☐ Breakfast, lunch, dinner
- ☐ Parties
- ☐ Soft/hot drinks
- ☐ Photos/filming

Expected budget: ____

The following form is used by the production/service managers to request additional resources from HR:

Recruitment Request

Contract type: ○ Full time ◉ Part time

Requesting department:

- ○ Administration
- ○ Services
- ◉ Production
- ○ Financial

Years of experience: 3 years minimum

Job title: Graphic Designer

Job description: ____

This form is filled during the first business meeting with the client, usually by the senior customer service officer:

Client Request Details

Client record number: e12488

Client name: College of Music

Event type: Workshop

Description: Workshop about music history

Expected Number: 200

Planned Budget: 50000 SEK

From: 01/09/2015 To: 03/09/2015

Decorations
Classic style is required
Special lightings
Pictures of some music composers are required

Food/Drinks
Fika at 8:30am
Lunch (Buffet - international Cuisine)
Coffee/Tea to be served in breaks

Filming/Photos
Some pictures for audience and participants

Music
Symphonies are preferred to be played during breaks
Required: Mozart and Beethooven

Posters/Art Work
One poster is needed at the entrance

Computer-Related Issues
Client will send us electronically the material that will be presented in the workshop

Other needs:

When there is a need for budget adjustment, the following form is filled by the production/ service managers to be sent to the financial manager:

Financial Request

Requesting department

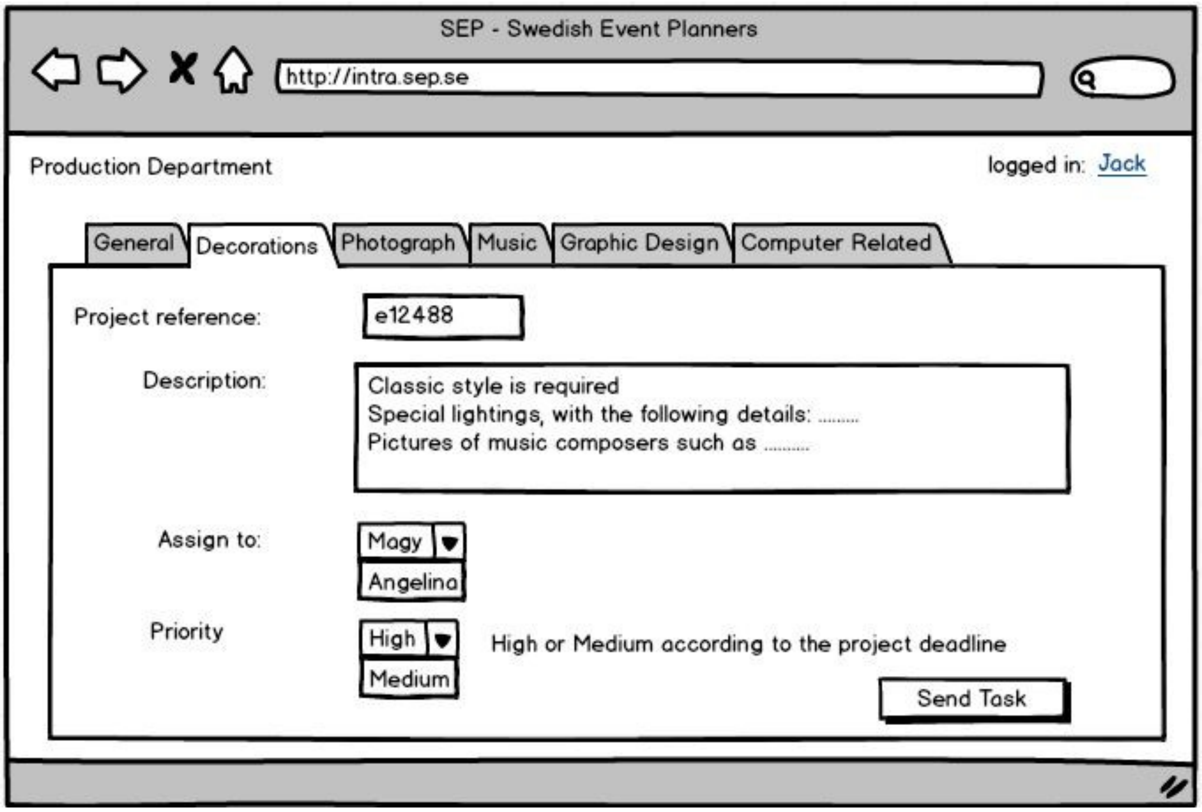
- ○ Administration
- ○ Services
- ◉ Production
- ○ Financial

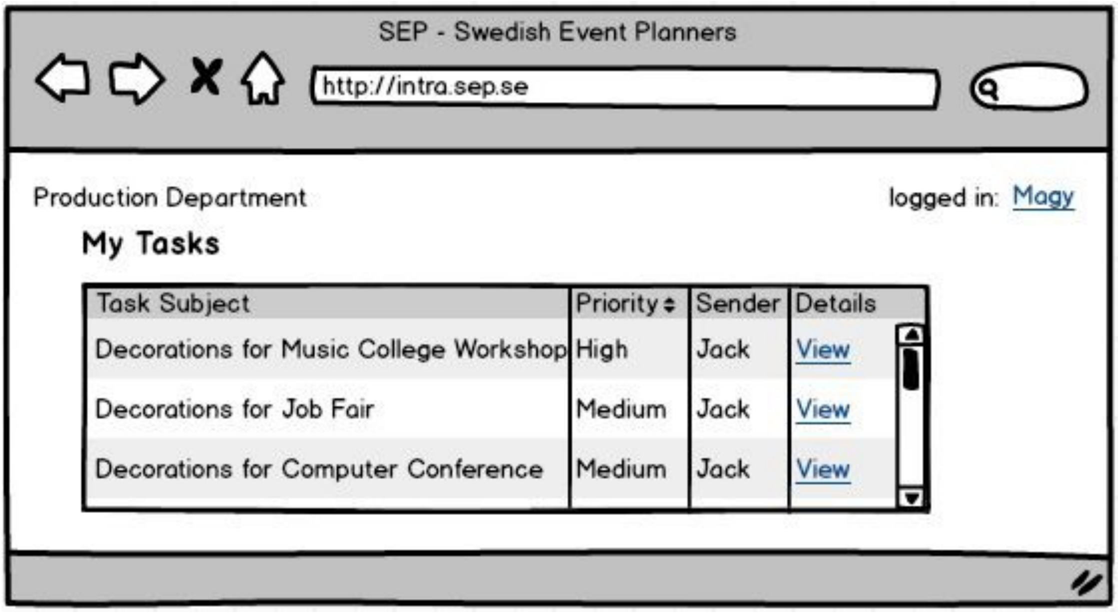
Project reference: e12488

Required amount: 5000 SEK

Reason: Needed for Decorations
Better quality of the requested lights by the client can be ordered online.

While Mila is showing you the paper forms, you want to make sure that you correctly understand the idea of the workflow in their system. So you draw the following sketches on a paper and show them to her. This to show a part of a scenario when the production manager sends a task to the decoration specialist, who will find it in her tasks list.






Mila

Yes I think you correctly understand this functionality !