



cesim
PROJECT

CASE DESCRIPTION





InsCorp

CASE DESCRIPTION

OVERVIEW

Cesim Project Management simulation places each participant in the shoes of a Project Manager in a document digitization program. The client is an insurance company called InsCorp. The goal of the program is to create an automated process for handling paper insurance claim documents that are delivered in a standardized format. Firstly, the customer's documents are scanned using optical character recognition. Then the automation will handle the subsequent payment process to customers.

The simulation begins from the point where the contract and preliminary program specifications have been defined. The program is then carried out by four separate teams that have their own project. (See Figure 1 below. Each box represents a single task.) While the teams are autonomous, they are dependent on the progress of each other. In fact, the program cannot be completed on schedule without clear communication. The program is important to InsCorp's strategy and should be completed in four months (four simulation rounds). However, this will be tough. Successful project management requires balancing the schedule goal with budget and quality goals. The model supports an extra 5th round which will be played if the program is not complete on the 4th round. However, a program on the 5th month is already considered to be out of schedule.

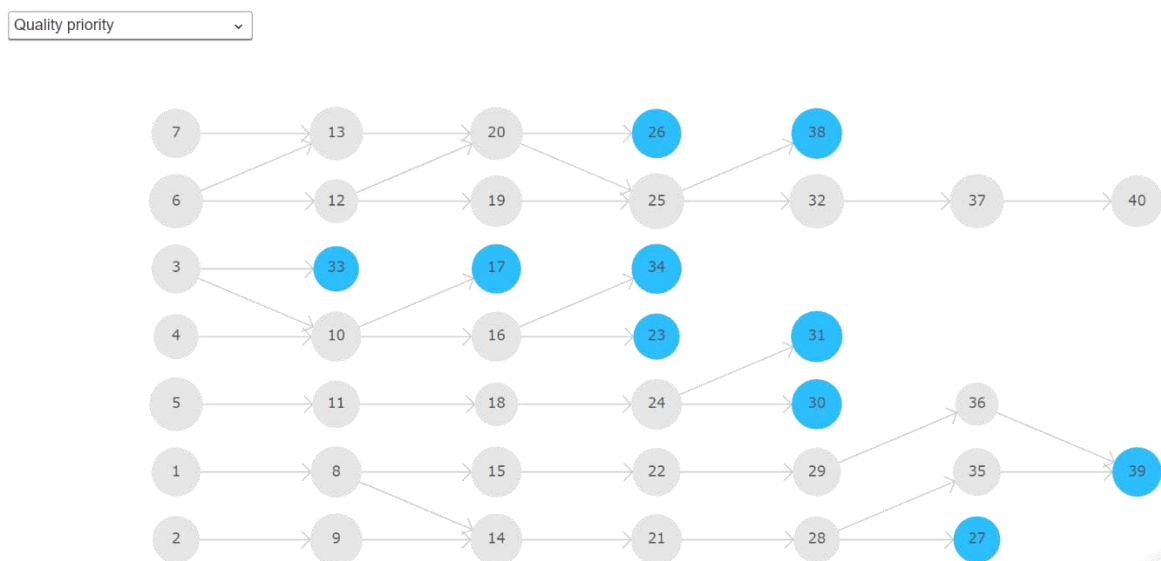


Figure 1: Project map for Digitizing project

PROJECT TEAMS

The program is divided into four teams which have their own projects: Digitizing, Payments, Internal and Customer. Each player is a Project Manager (PM) for one of these projects. A PM is ultimately responsible of project's progress, budget and other requirements. However, the overall program completion is the greater goal. Figuratively speaking, you are in the same boat.

Teams consists of four team members. The team members are automatically generated by the simulation and have differing skillsets and salaries. However, every team has roughly the same setup:

- **Project Manager:** The PM's responsibility is to allocate tasks to the different members. The PMs are competent in tasks that require Communication, Negotiation and Design. As a busy project manager, the PM is only available to invest half of available work-days to the tasks.
- **2 X Full-Time Workers:** Two of the four team-members are full-time workers. These workers are experts in technological implementation.
- **Experienced Expert:** The fourth team member is an expert who will work in the team for the first two months before moving on to other duties. She is highly competent in specific skills but will be only working part-time. Due to her limited availability and high hourly salary, her time should be used wisely.

HINT: Please note that it is possible to transfer team members (excluding the PM) to other project teams, if their skills are considered a better fit there.

PROJECTS

DIGITIZING (DIG)

The Digitizing project is responsible for delivering the reading and scanning process.

PAYMENT (PAY)

The Payment project is responsible for creating an automated payment process.

INTERNAL (INT)

The Internal project is responsible for the internal product development. The internal tools they develop are utilized in various different projects and implementations. The INT team is responsible for ensuring that the internal tools are upgraded to meet each customer's specific scenario.

CUSTOMER (CUS)

InsCorp is streamlining its processes and is automating them on a rapid pace. Our digitization and payments implementations are just components of a far wider strategical shift. Consequently, an InsCorp's internal development project has two-way interdependencies with digitizing and payments projects. InsCorp has assigned one of our Project Managers to lead the aforementioned internal project.

SKILLS

Each project manager controls a set of team members that are generated by the simulation. These team members have variation in their skill levels and salaries. Team members are allocated to different tasks based on their relative fit to the task. The player skills include:

1. Negotiation
2. Communication
3. Customer management
4. Change management
5. Product knowledge
6. Software development
7. System architecture
8. Technical project management
9. Design
10. Planning

The different projects have different weights on the skills required. For example, some projects are more intensive in Software development than others. Moreover, the internal teams (INT & CUS) do not require any skills in Customer management. As an example, you can see the Digitizing project skill requirement distribution below in Figure 2. The charts can be seen in the All projects –tab in the game.

Digitizing - 300 workdays

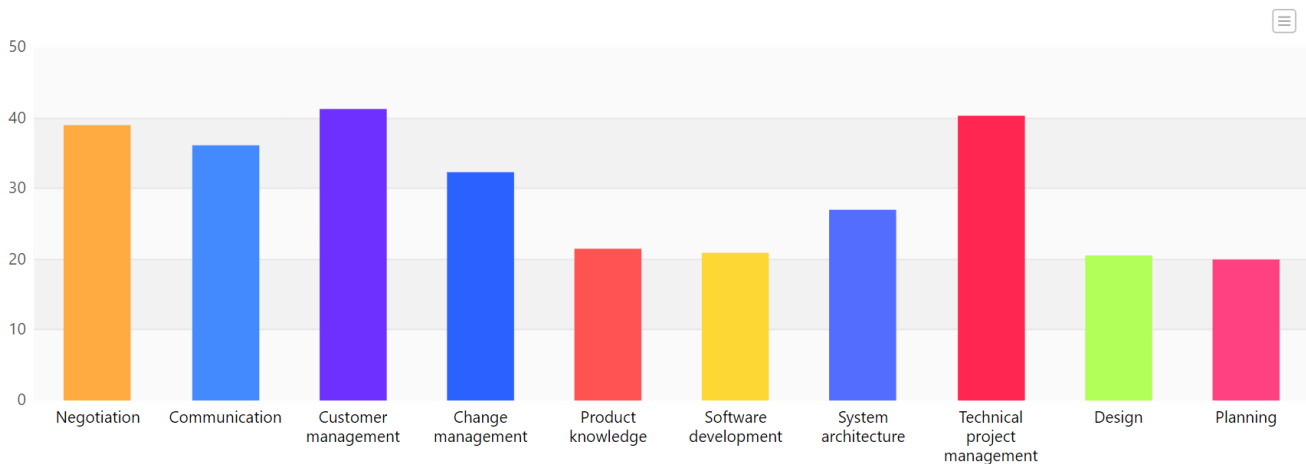


Figure 2: Skill requirement allocation chart of Digitizing project

TASK ALLOCATION

Each project is divided into 40 tasks. Most of the tasks have other tasks as dependencies. Each task is performed by a single team member. Factors that affect the task allocation decisions include:

- **Productivity:** Each team member has a unique set of skills and therefore their task-specific productivity varies. The higher the team member's total productivity in a task, the faster they perform it. You can compare team members' fit to tasks by comparing the total productivity multipliers from the table on the Tasks page or by using the spider chart next to it.
- **Salary:** Some team members have a higher salary than others. If a certain phase of a project is not time critical, it makes sense to minimize costs by allocating tasks to a less competent and less expensive worker. Remember that the cost of slack is 40% of the regular salary.
- Some tasks are possible to outsource for a lump sum. Check outsourcing offers from Project Management page.

TASK TYPES

The simulation consists of two different kind of tasks: mandatory tasks and quality tasks. Navigate to the Project map and select "Quality priority" from the drop-down menu to distinguish these two types.

MANDATORY TASKS

Mandatory tasks are represented by the gray boxes in figure 3 below. These tasks are required for the program completion. If even one of these tasks is not complete, the program cannot be delivered to the customer.

QUALITY TASKS

Quality tasks are not required for program completion. Instead, these tasks accumulate quality points [1-3]. These points are taken into account when calculating teams' performances. It is each Project team's strategical choice to choose the right amount of quality tasks, i.e.: balancing with schedule, budget and cost goals. Quality tasks are represented by the blue boxes in figure 3 below.

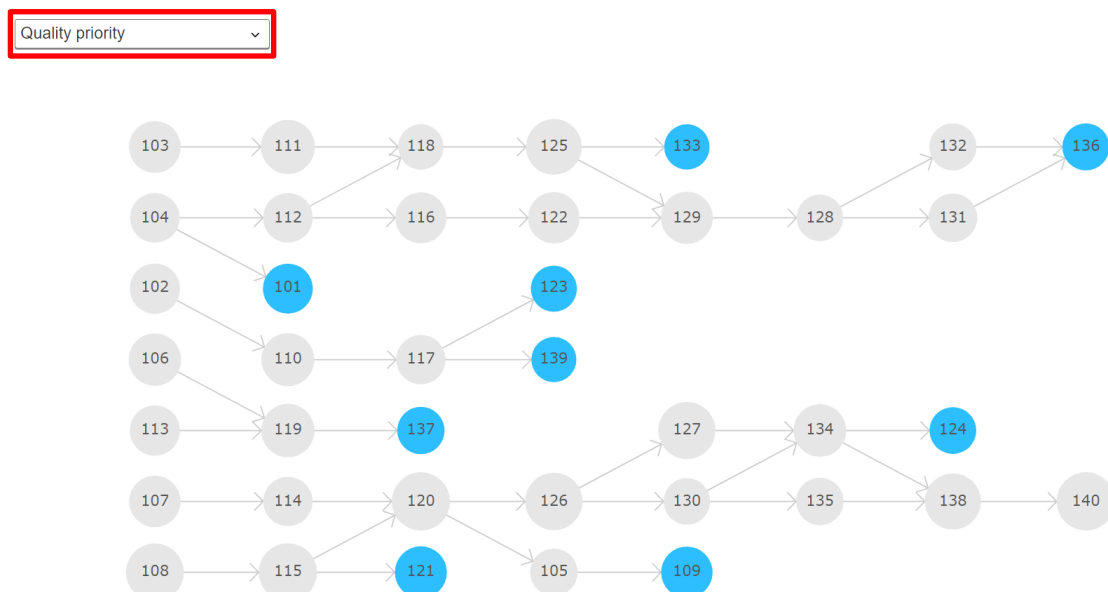


Figure 3: Project map for Payment project with quality tasks highlighted

PROJECT ROUNDS

The program is scheduled to take 4 rounds, each round representing one month. These rounds loosely follow a Decision point (DP) convention that is used to set milestones in projects. In practice, we implement the DP's as dependent tasks that other teams are dependent on (see Dependent tasks below). One team cannot proceed fully to the next DP before another team has completed its prerequisite dependent task.

Clear communication and teamwork are essential for successful project management. It is crucial to inform your colleagues of your tasks that have a dependency on your colleague's tasks (check the "Dependency on other projects" on your Project map). Be aware that a colleague PM needs to complete the work on the dependent task already in the previous month before you can start your work on the task depending on it.

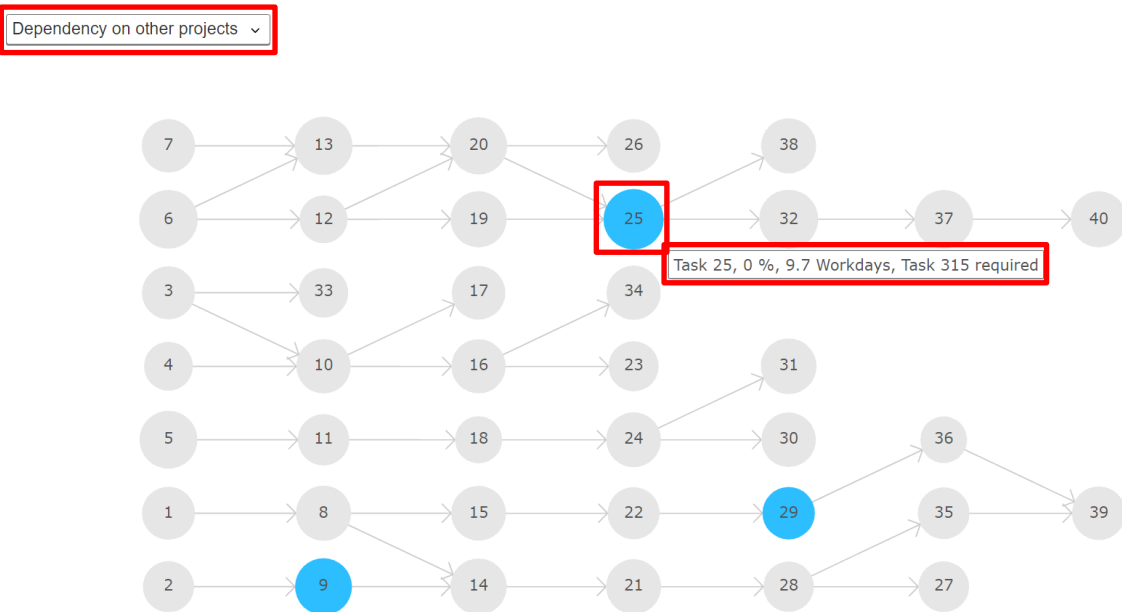


Figure 4: Hovering the mouse on top a task which has a dependency on another project reveals the task number of the dependent task

DEPENDENT TASKS

The completion of the program on schedule requires solid communication between teams since the teams are highly dependent on the other team's progress. In fact, the program is not possible to complete on schedule without communication. This is achieved via dependent tasks.

Every round you should reach a certain dependent task which is a prerequisite for the progress for another project. Otherwise another team cannot progress on the following round. Be aware that a colleague PM needs to complete the dependent task already in the previous month before your team can progress.

Each team can observe which tasks they are dependent on. Navigate to "Decisions" -> "Project map" -> "Dependency on other projects". However, teams cannot observe which tasks other teams are dependent on. PMs are expected to communicate these dependencies and do a project plan based on that.

Let's have a look on dependent tasks per each round more closely:

ROUND 1 (DP 1: DESIGN - SPECIFYING AND APPROVING PROJECT SCOPE)

The contract has been signed and overall requirements have been determined. The CUS team has delivered the DIG team some sample documents and our teams are discussing on how to implement a solution which is aligned with the company's strategy. The teams create detailed design, test and implementation plans and gather the required resources to fulfil the project.

Dependent tasks:

- CUS → PAY: CUS delivers the palette of payment options the process must meet
- DIG → CUS: DIG delivers the specifications of the test materials required for CAT
- INT → DIG: INT sets the internal technical specifications the process must meet
- PAY → INT: PAY specifies the internal requirements of the bank-transfer API

ROUND 2 (DP 2: DEVELOPMENT / UNIT TESTING - TECHNICAL PLANNING AND IMPLEMENTATION)

The teams implement their plans and perform unit testing. The INT and PAY team ensure that their solutions fulfills client's needs and also is aligned with corporate strategy. The teams prepare for customer acceptance testing and compose necessary documentation.

Dependent tasks:

- DIG → INT: DIG specifies internal requirements of project
- CUS → DIG: CUS delivers test material for CAT
- INT → PAY: INT delivers the internal support for bank-transfer API
- PAY → CUS: Payment delivers their bank-transfer API for CAT

ROUND 3 (DP 3: CUSTOMER ACCEPTANCE TESTING)

The teams test the implementation and specify which steps need to be taken before deployment.

Dependent tasks:

- PAY → DIG: PAY delivers their bank-transfer API for synchronization and final testing
- DIG → PAY: DIG delivers their document handling for synchronization and final testing
- CUS → INT
- INT → CUS

ROUND 4 (DP 4: DEPLOYMENT, PRODUCTION AND DEVELOPMENT COORDINATION)

The teams implement the final changes and prepare for closing the program.

RESULTS

THE WINNING CRITERION

As mentioned before, project management consists of balancing between time, quality and cost goals. In order to determine a definitive winner of the simulation, we transform time and quality goals to monetary terms via comparison values. The winner of the simulation is the Project that maximizes the following formula:

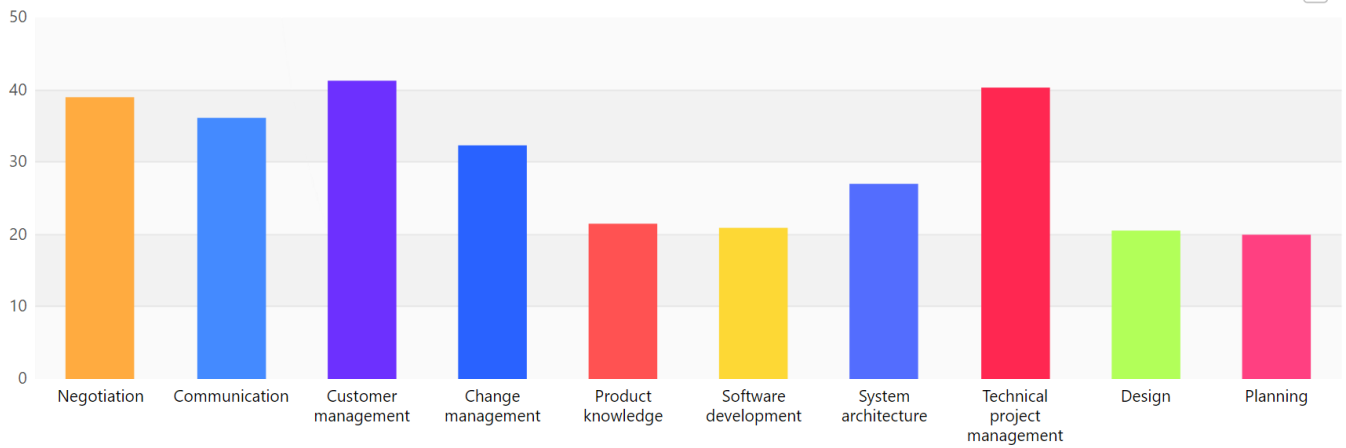
$$\begin{array}{ccccccc}
 & & & & \text{Winning criterion} & & \\
 & & & & = & & \\
 \text{value of} & & \text{total} & & \text{costs} & & \text{penalty of} & & \text{number} & & \text{penalty for} & & \text{expected} \\
 \text{quality} & \times & \text{quality} & - & \text{incurred} & - & \text{being one} & \times & \text{of days} & - & \text{unfinished work,} & \times & \text{workdays} \\
 \text{point} & & \text{points} & & & & \text{day late} & & \text{late} & & \text{per workday} & & \text{required for} \\
 & & & & & & & & & & & & \text{remaining tasks}
 \end{array}$$

Please note that this is a team game. Individual project results are not taken into account in any manner.

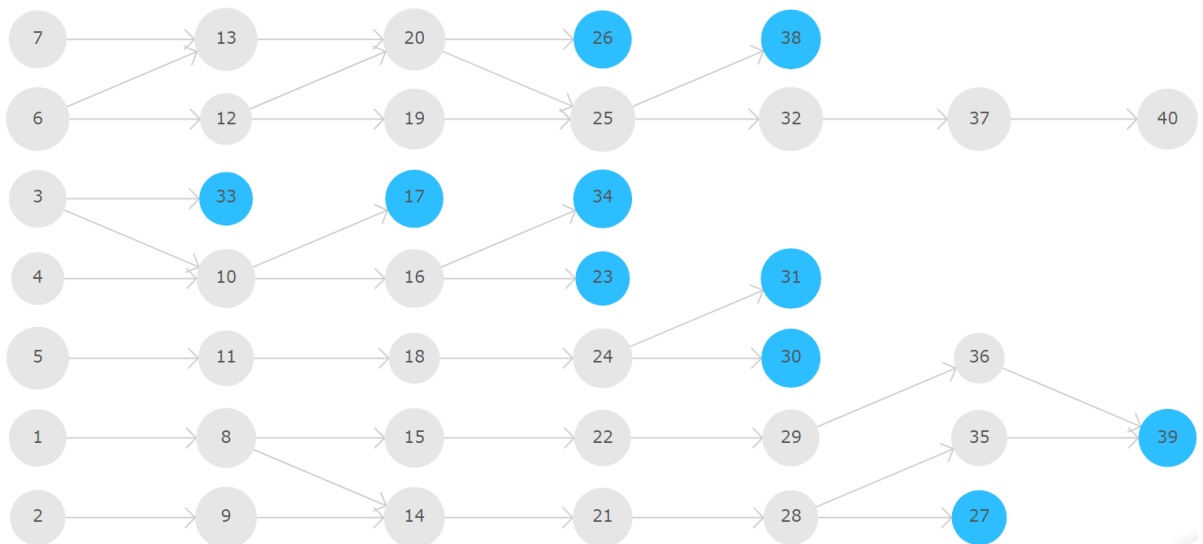
APPENDIX

PROJECT MAPS AND TOTAL PROJECT SKILL REQUIREMENTS

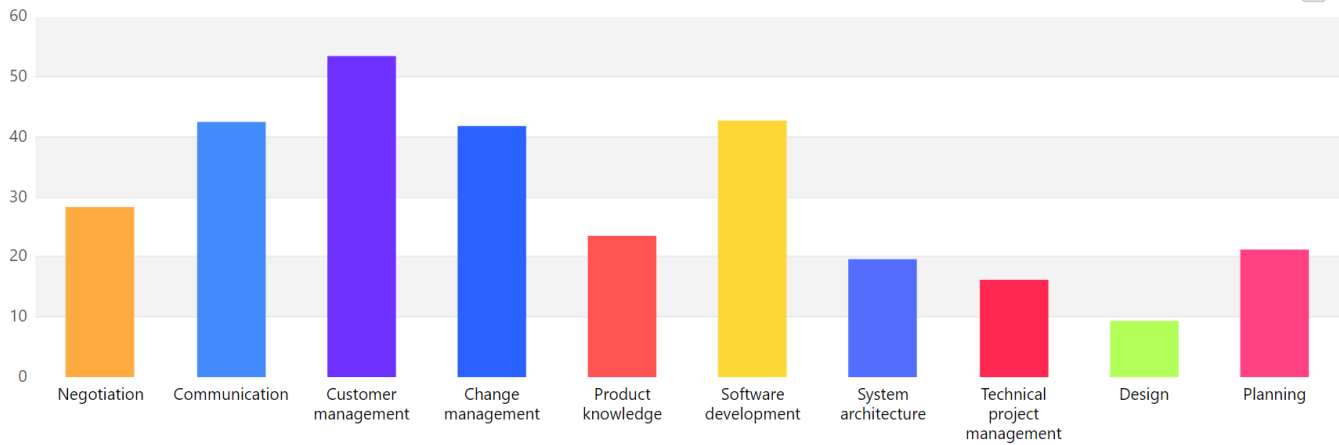
Digitizing - 300 workdays



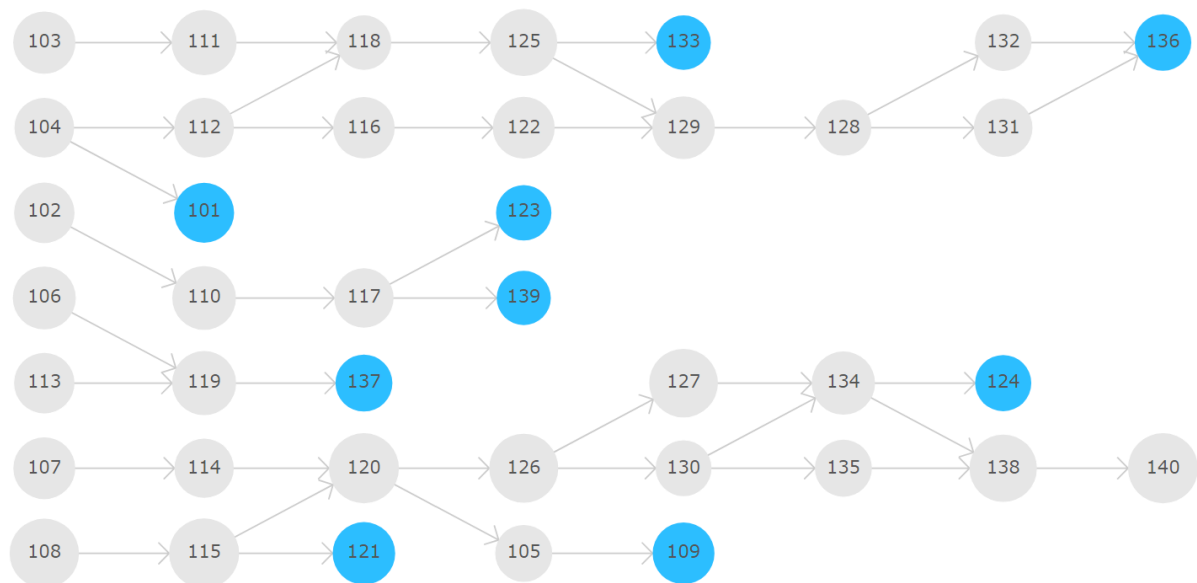
Quality priority ▼



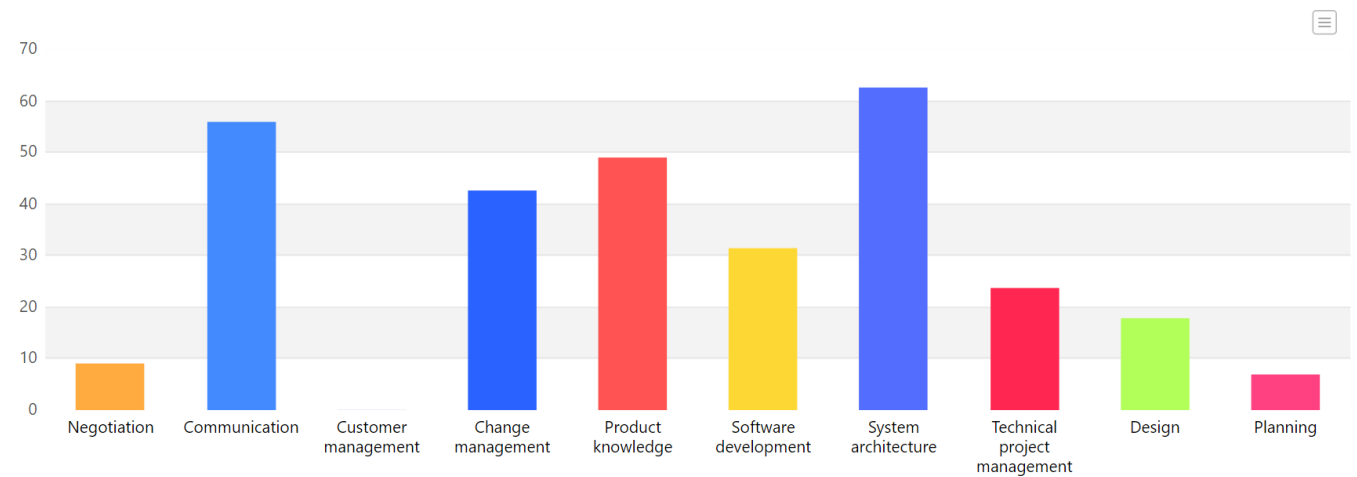
Payment - 300 workdays



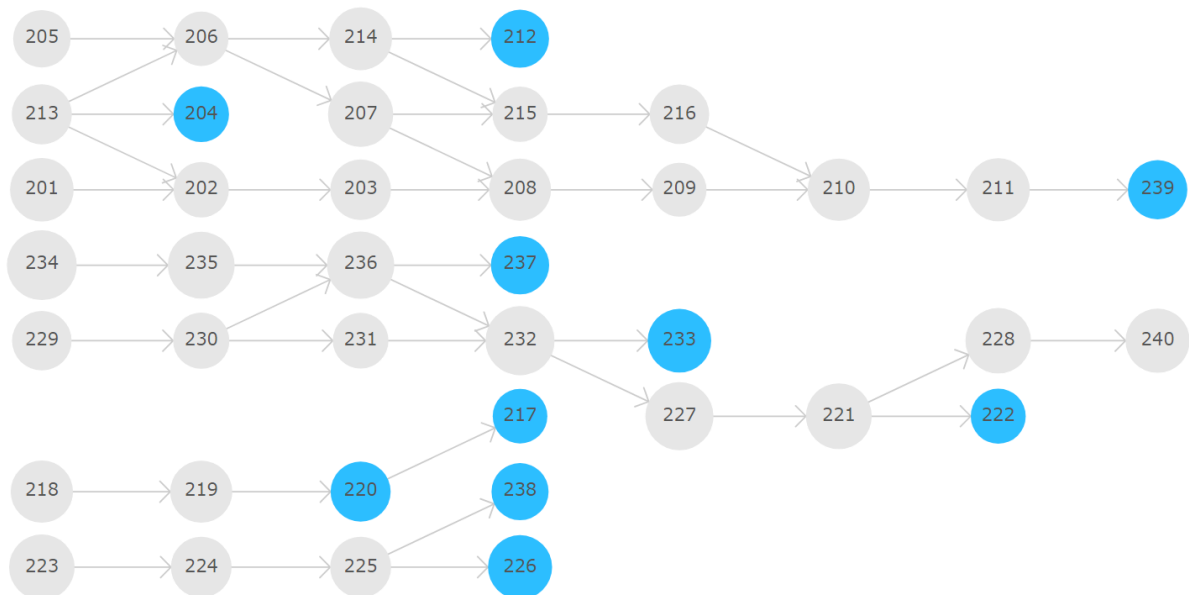
Quality priority ▼



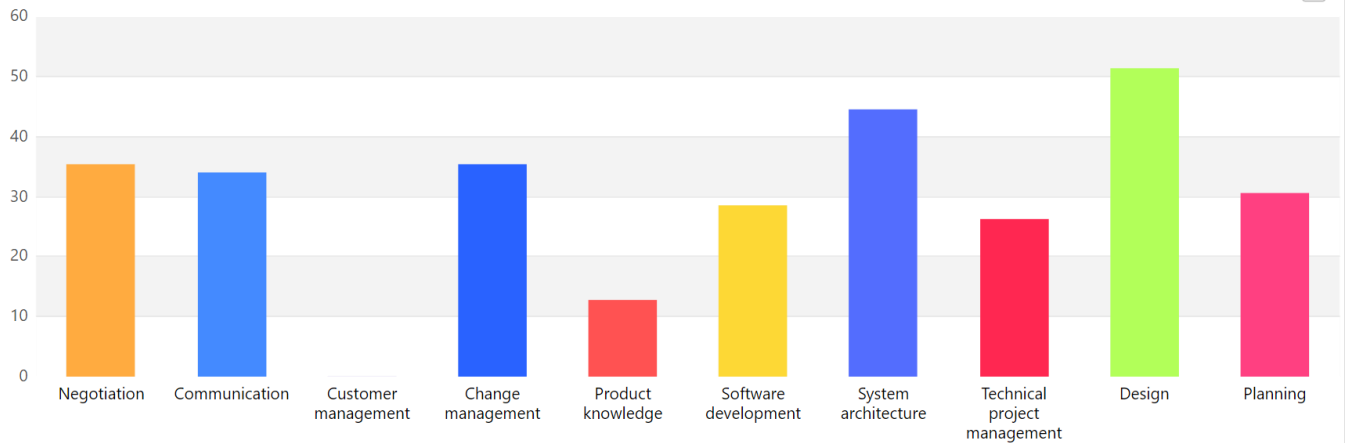
Internal - 300 workdays



Quality priority ▼



Customer - 300 workdays



Quality priority ▼

