



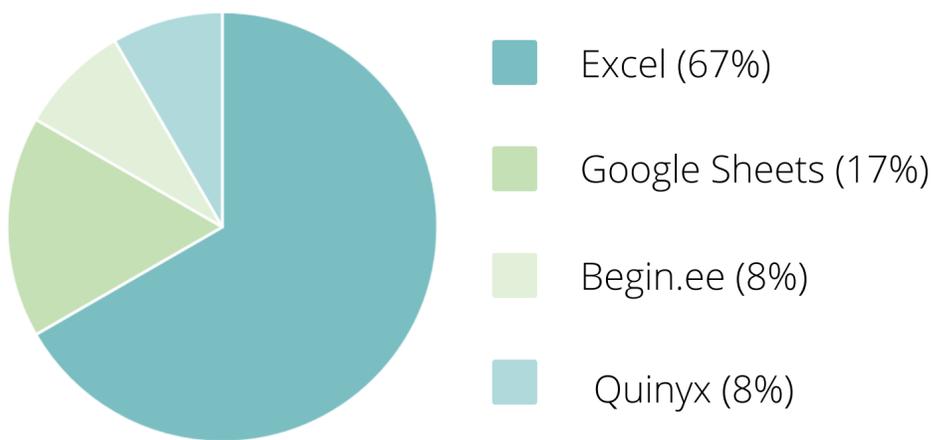
Gräfik

Software solution for managing employee calendars for restaurants, bars, cafes and retail jobs.

THE WHY AND HOW OF GRÄFIK

Our team has worked in many restaurants and we have noticed that none of them had a good staff scheduling system. None of the establishments used a platform that would create the schedules autonomously. Restaurant managers faced many hurdles: a long and uncomfortable process of gathering the employees' wishes and solving the puzzle of considering everyone's needs while filling in all the necessary working hours without any help from the software. In addition to that, employees also had a problem: it was difficult to access and view their own working hours. That's why we decided to create Gräfik. It is a platform that integrates all the important aspects of creating a schedule: an understandable and easily manageable user interface, a software that creates schedules with requested days off and other wishes, thus saving time for managers and employees.

PROGRAMS AND SYSTEMS USED IN TARTU



QUESTIONNAIRE

We asked 11 restaurants in Tartu how content they are with their current scheduling systems and here's what we found out:

- On average the time spent on creating work schedules for 20 employees takes around 2-5 hours in a month.
- The most challenging part of creating a schedule is considering every employees' wishes while filling the work hours.
- Currently, there is no automated solution for creating schedules, so many restaurants have tried to find the solution in Excel.
- There is no solution for simplifying the process of considering employees' wishes.

THE NUTS AND BOLTS OF GRÄFIK

Currently, the software receives all of the employee data from an excel file through the IOHandler, sorts it into employee objects and passes it off to the Schedule class. The Schedule class takes into account as many of the employees' wishes as possible, such as overtime, daily shift length, many different types of busy days and alongside whom the employee wishes to work. In the future, we wish to add some more parameters and polish the ones we have already put into place. We are also planning to implement the UI of which an example can be seen below as right now the program's input and output are Excel tables.

Personal details

Full name

E-mail address

Phone number

Address



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
Peeter Paunkülast	8		8			8	8		8	8		8	8		8	8		8	8		8	8		8	8		8	8	8	160	
Silvia Sakalast	12	8		8			8		12		12		8	8			12	8	8			12					12	8	12	160	
Anna Antslast			8		12	8				12		12						12						12					4	80	
Kalle Keilast	8	12	4	12		4	4		8	8		4	12	4	12		8		4	4	12		8		12	4	4	8	12	160	
Priit Pihkvast		8		8	8	12		12		8	8	8		12		8	8	8		12		8	8	8		8		12	8	160	
Markus Mätjalt			12			12		8	8		8	8			12	8	8	8		12		8	8	12		12	8	8	8	160	



Preferred days to work

E	T	K	N	R	L	P
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10



 <https://github.com/karlhk/Tudengiprojektide-voistlus>



UNIVERSITY OF TARTU
Institute of Computer Science

Renno Sepp, Computer Science, year II
Karl-Hendrik Veidenberg, Computer Science, year II
University of Tartu, Institute of Computer Science