

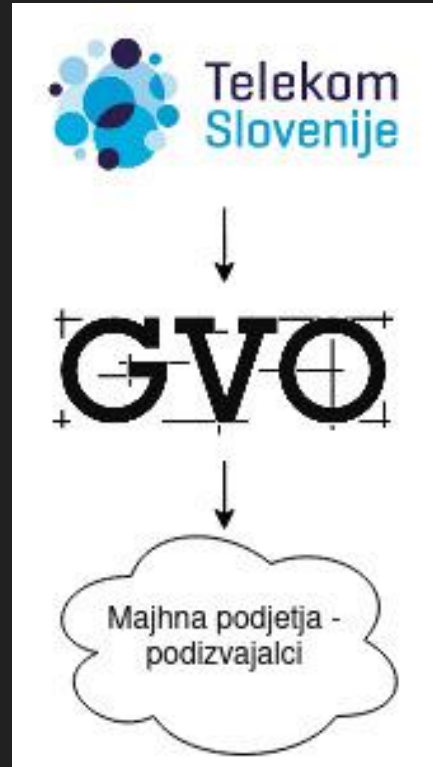
# Enterprise Resource Planning (ERP) System for Telekom Slovenije Subcontractors

Student: Nikola Marin  
UP Famnit, 2020

# Content

- Introduction
- Business process analysis (subcontractors of Telekom Slovenije)
- Business process problems
- Conceptual model proposition and analysis
- Conclusion

# Introduction



# Introduction

- Subcontractors rely their businesses only on e-mail and Microsoft Office
- They often experience data and time losses, human errors, and misunderstandings



# Business process analysis - HR management

- Organize available workers into working groups
- Register working groups to Telekom Slovenije
- Respond to vacation requests

# Business process analysis - Service Preparation

- Every registered working group gets work order

Šifra	Ime	Šifra	Ime	Šifra	Ime	Kontakt	ID zaposlenika	Datum prijava	Datum završetka	Kredna grupa	Datum	Kredna grupa	Uvjetanje	Datum	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak	Dobitak
514094	ime podjetia	001/013	KRESNIC E	KRESNIC E 01	Petar Zmeda	kontakt: g. Petar Zmeda, gsm: 04456871	12671296	1	10/9/2019	10/10/2019	14.30																				
514054	ime podjetia	001/024	ZGORNIJ HD TIC	ZGORNIJ HD TIC 01	Mihael Karolina	kontakt: Mihael Karolina gsm: 0698542	12713568	1	10/9/2019	10/10/2019	12.30																				
	ime podj	451-7/out05	Riške	Riške X	Rihard Anita	51894567			10/9/2019	10/10/2019	10.30																				
	ime podj	381-7/out03	Litija	Silvina Y	Domen mateja	64985343			10/9/2019	10/10/2019	8.00																				

- Customer data
- Connection technical data
- Task description

# Business process analysis - Write report

- Every work order contains a number of report columns

Q.	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje	Ime	Podjetje
	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje
	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje
	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje
	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje	ime	podjetje

- Reporting relevant data
  - New connection status
  - Technical data
  - Remarks
  - Problems
  - Status





# Business process problems

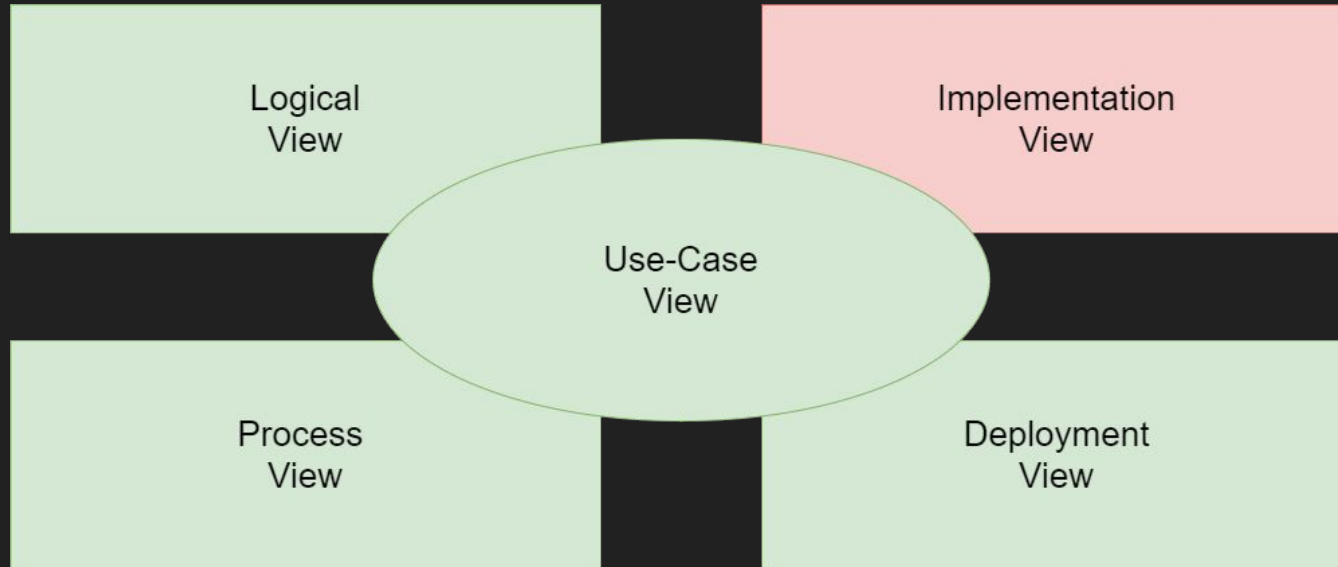
- Workers do not possess enough computer education
- Data loss
- Wrong or incorrect reports
- Archiving and searching the data
- Accounting tasks are accomplished manually

# Business process problems solution

- Implementing ERP system
  - Read and process incoming work orders from email
  - User friendly interface
  - Automatically send reports
  - Store data into database or content server
  - Evidence and management of employees
  - Automated financial and statistical analysis
  - Data visualization
  - Mobile system
  
- System should be
  - Optimized for small company budget
  - Modular



# Conceptual model proposition and analysis



# Conceptual model proposition and analysis

- Subsystems
  - HumanResources
  - ServicePreparation
  - Reporting
  - Accounting
  
- Beyond the scope
  - Email send/receive
  - Authentication
  - User management

# Conceptual model proposition and analysis - Types of users



- user management
- system configuration
- access to all subsystems



- financial status analysis
- financial reports

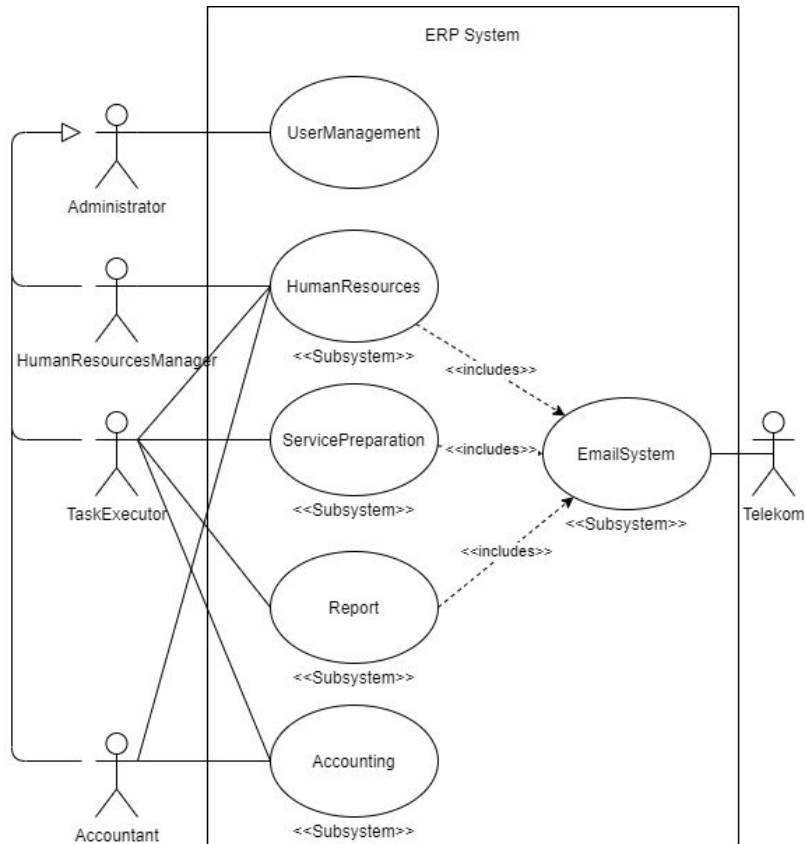


- execute tasks
- write and send reports



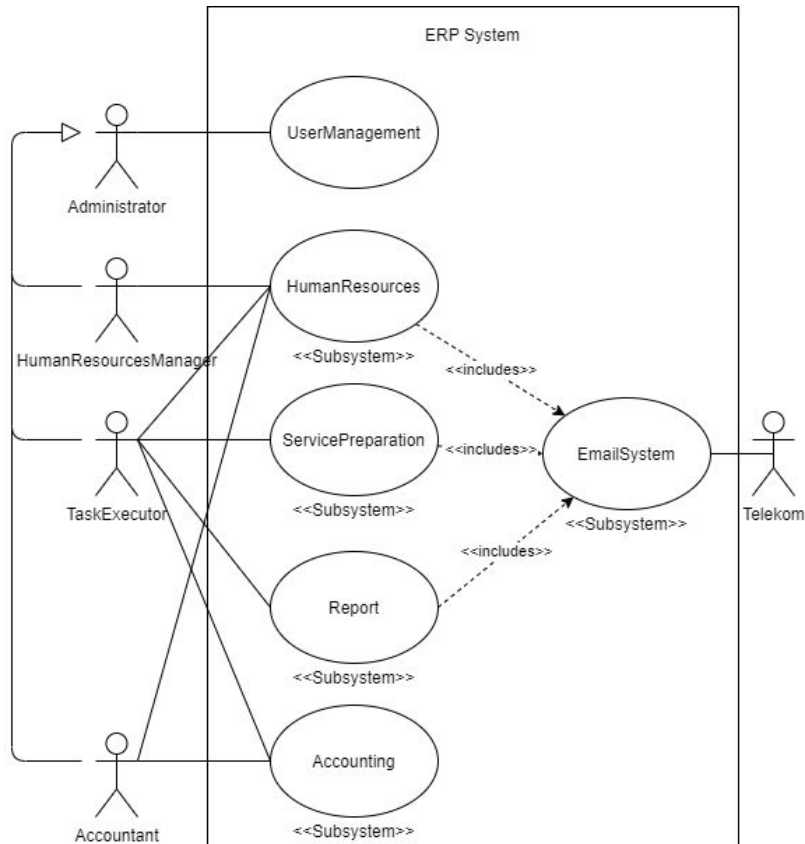
- working groups management
- report working groups
- manage vacations

# Conceptual model proposition and analysis - Use case



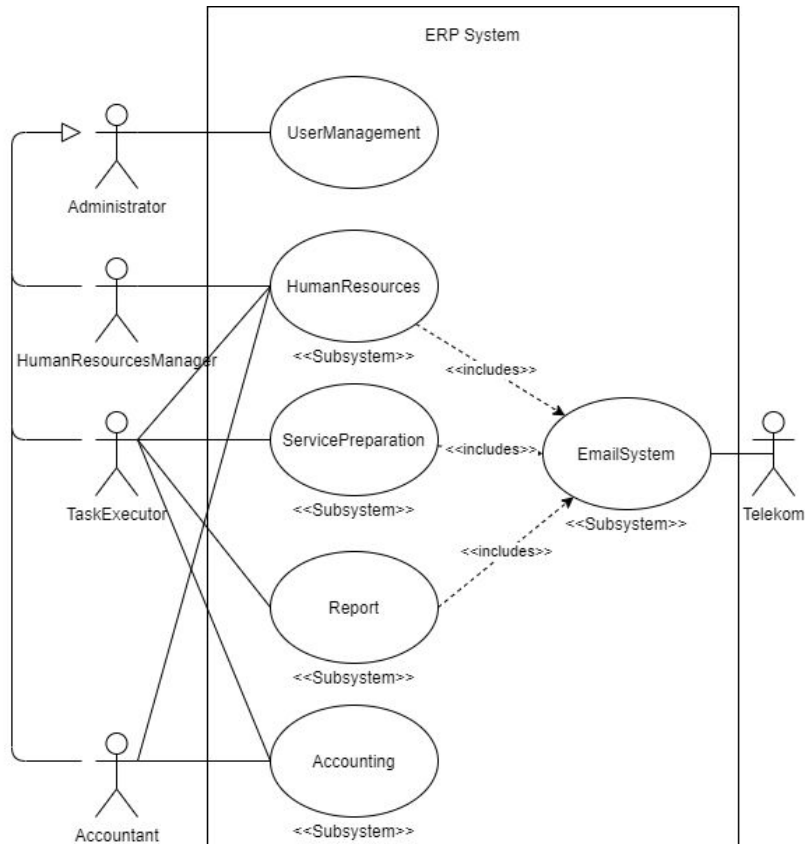
- Human resources manager
  - List available workers
  - Respond to vacation request
  - Create working groups
  - Analyse worker
  - Register working groups to Telekom

# Conceptual model proposition and analysis - Use case



- Task executor
  - Preview generated documentation
  - Print work orders
  - Write report
  - Request vacation
  - Overview financial profile

# Conceptual model proposition and analysis - Use case



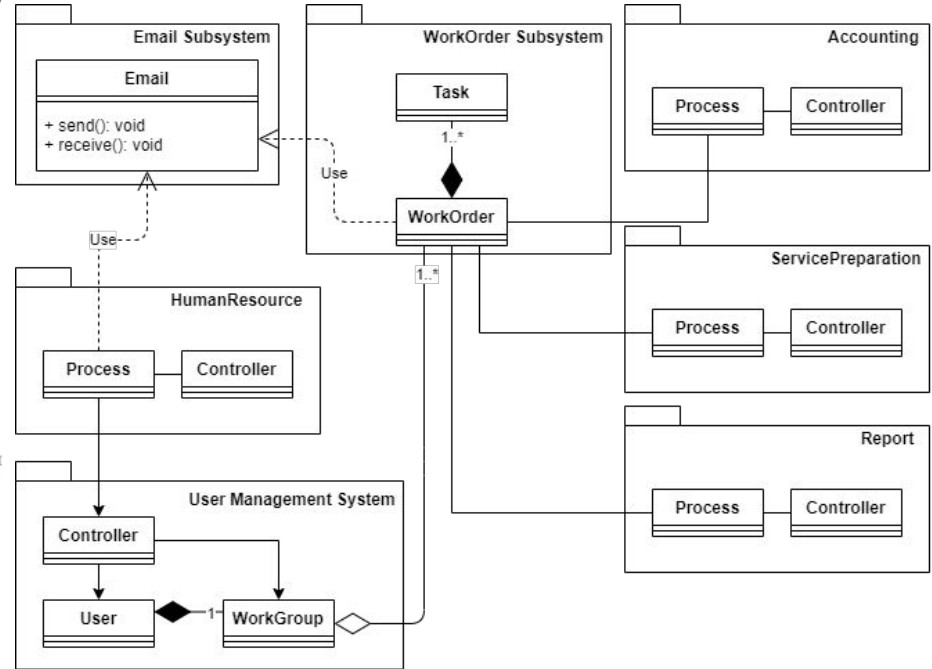
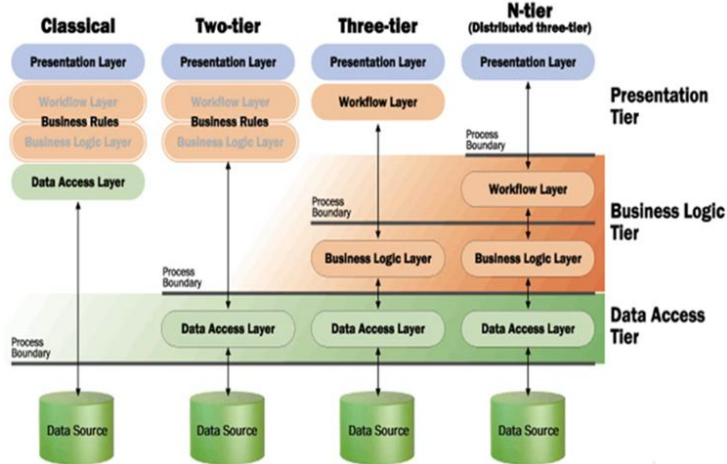
- Accountant

- Access calculated financial states
- Statistical analysis
- Import documents and data
- Export documents

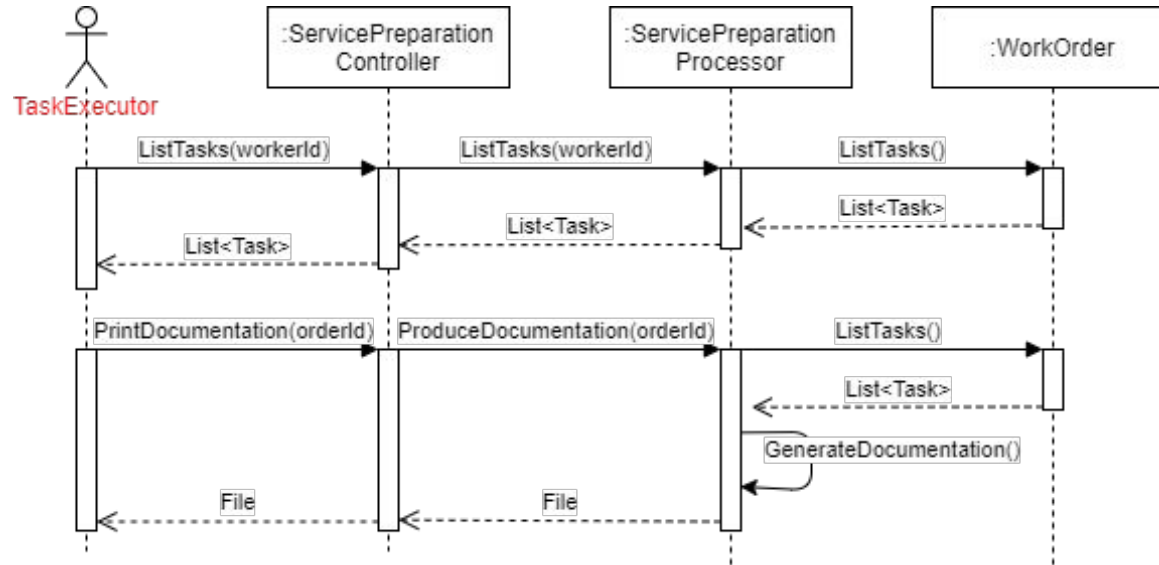


# Conceptual model proposition and analysis - Logical view

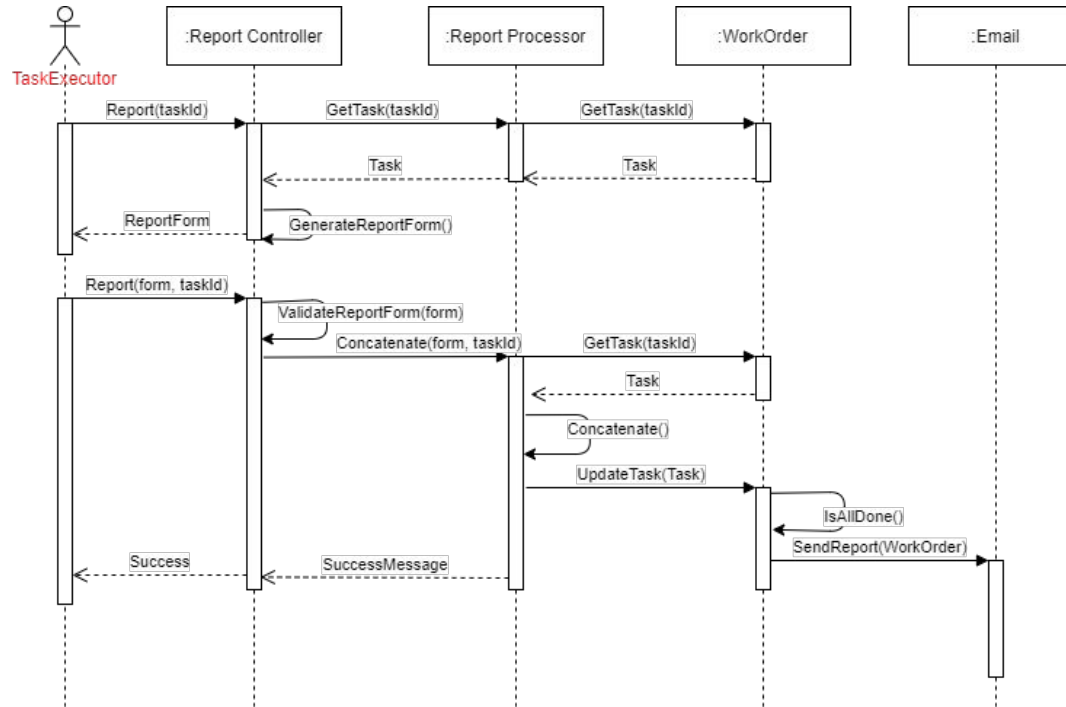
- Web-based Object-Oriented Model (WOOM)
  - Faster implementation and customization
  - Internet access
  - Lowers infrastructure costs
  - **Security issues**



# Conceptual model proposition and analysis - Process view



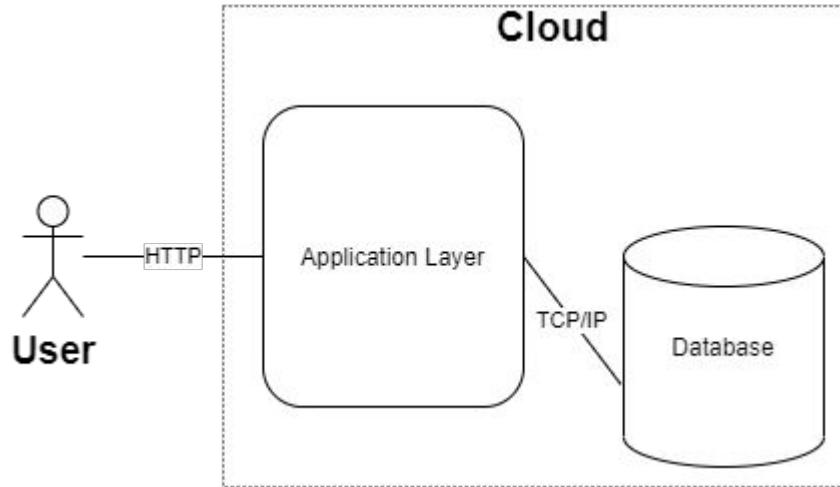
# Conceptual model proposition and analysis - Process view



# Conceptual model proposition and analysis - Deployment view

- Traditionally ERP are implemented in company premises
  - Servers
  - Required packages
  - Maintenance
- Cloud based system
  - Servers are located in different places
  - Cloud based ERP systems
- Software as a Service (SAAS)
  - Provider applications on cloud architecture
  - Company pays only subscription fee
- Platform as a Service
  - Cloud infrastructure to build and deploy applications

# Conceptual model proposition and analysis - Deployment view



Advantages	Drawbacks
<ul style="list-style-type: none"><li>- Low cost</li><li>- Scalability</li><li>- Easier implementation changes</li></ul>	<ul style="list-style-type: none"><li>- Security</li></ul>

# Conclusion

- Business process analysis
- System requirements defined
- Business process automatization
  - Eliminating problems in business processes
- Modular system
- The main drawback is security
- Cloud ERP can give more benefits compared to traditional ERP

# Questions

