

OSTİM TECHNICAL UNIVERSITY

FACULTY OF ENGINEERING

WORKPLACE TRAINING / PRACTICE / EXPERIENCE REPORT

DEPARTMENT OF SOFTWARE ENGINEERING

NAME-SURNAME

YEAR

**FACULTY OF ENGINEERING WORKPLACE TRAINING / PRACTICE / EXPERIENCE 20…/ 20… ACADEMIC YEAR …….. SEMESTER REPORT**

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| **STUDENT INFORMATION** |
| **Student's Name and Surname** |  |
| **Place and Year of Birth** |  |
| **Faculty Number** |  |
| **Department** |  |
| **Lesson code** |  |
| **Phone number** |  |
| **E-mail address** |  |

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| **BUSINESS / COMPANY INFORMATION** |
| **Name** |  |
| **Address** |  |
| **Production / Service Area** |  |
| **Phone number** |  |
| **E-mail address** |  |

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| **WORKPLACE MENTOR INFORMATION** |
| **Name and surname** |  |
| **Position / Title** |  |
| **Phone number** |  |
| **E-mail address** |  |

**REPORT WRITING RULES**

1. Reports should be written only on one side of the paper using a computer. Times New Roman (12) font should be used.
2. While writing the inside of the tables, maximum 12 and at least 8 font size can be used. Font sizes other than these values ​​should not be used.
3. There should be a one-stroke break after the comma and the period.
4. 2.5 cm margins should be left at the top and left edges of each page, and 2.5 cm at the bottom and right edges.
5. To center the text part of the page after binding; texts should be centered according to the written block. In report writing, all lines should start from the end of the left margin and the text should be written justified on both sides. Single line spacing should be used in the text.
6. Single line spacing should be used for explanations of figures and tables, citations, footnotes and reference list.
7. The Report will consist of the following sections:

b. Information Form (See page 2)

c. Questions to be answered section (Business General Information, questions according to course codes should be answered in order. The questions are given starting on the 4rd page.)

d. Conclusion Section

e. Appendix Section (Additional data, tables, figures, graphics, technical drawings, photographs, brochures, etc. documents specified in the report, if any, will be added in this section.)

f. The report book shall not exceed a maximum of 100 pages.

1. After filling out the information form, students will start answering the questions one by one. The sample page for the question answering page is given in Appendix 1. Students may reproduce this page as many times as necessary.
2. All pages in the report book will be delivered signed and sealed at the end of the semester.

**BUSINESS GENERAL INFORMATION**

1. Give information about the name of the business, the subject of work, the place of establishment and its short history.
2. Type of business (incorporated, limited, ...) Give information about the resources and capital structure of the business.
3. Give information about the capital of the enterprise, production capacity, annual sales amounts and number of employees.
4. Give information about the product types of the enterprise and the annual production amount, market price etc. of these products.
5. Indicate the number of Electrical and Electronics Engineers in the enterprise, their names, and in which position they are assigned.
6. By drawing the organizational chart of the business, show which units constitute the production and all other business functions, relations between units, authorities and responsibilities.

**QUESTIONS REGARDING WED 124 COURSE (1st YEAR 2nd SEMESTER)**

1. Which software/programming language does the company use to develop products?
2. What software development products does the company use?
3. If the firm, its employees or products are to be defined as a structer, how is it defined?
4. Was there a software library the company used? Can you explain us about this library?
5. Is there a math method/formula or physics formula/method used in the company? If yes, explain; if not, how would you solve a problem in the company with a mathematical theorem?
6. Does the company use pointers? If the company use pointers, for what purpose does it use it and how does it benefit?
7. Draw a data structure process/structure/system used in the company as UML.

**QUESTIONS REGARDING WAP 225 COURSE (2nd CLASS 1st SEMESTER)**

1. What are the data structures implemented in the company?
2. Draw the class (data structure) structure of a product used by the company according to yourself. Explain how you chose the features to be included in each node.
3. What are the search/sorting algorithms applied in the company?
4. Is there a point that is used as an array in the company, but according to you, an arraylist (linked list) should be used? Why?
5. If object oriented system is used, why does the firm use an object oriented system?
6. Does the firm have any recommendations for discrete structures used in its products? If not, write the company's proposition for an operation.
7. Was there a problem in the company that was solved using inductive methods?

**QUESTIONS REGARDING WAP 226 COURSE (2nd CLASS 2nd SEMESTER)**

1. Does the company use an existing database management system? Please provide information about this system if it is used, and if it is not used, are there any units that need data management?
2. Classify database management systems and compare their features and indicate priority or succession between them.
3. Does the company have a cloud-based storage or backup process? What are the pros and cons of using cloud-based systems? Write.
4. If a specific software needs to be developed for the company, what could be the capabilities of this software?
5. What criteria should be considered when making a software project for the company?
6. What are software development models?
7. Is there any corporate software used in the company? If yes, what are the features of this software, certificates of the software? Write in detail.
8. Perform risk management of a process that is already done in the company.
9. Analyze the company's website in terms of web technologies.
10. Which of the new generation web technologies can be used to support the processes of the company?

**QUESTIONS REGARDING WAP 325 COURSE (3rd GRADE 1ST SEMESTER)**

1. What operating systems are used in the company?
2. What types of operating systems does the company have examples of (multi-user, server, etc.)?
3. Which open source software is developed in the company?
4. Does the company have a mobile application? If yes, please explain in detail.
5. Make an algorithmic analysis of a technical problem or project belonging to the company that needs to be resolved.
6. In which areas are statistical analyzes performed in the company? Are there any programs used for the analysis?
7. What software was the company's website prepared with? Identify areas of improvement.
8. What is dynamic programming? Write and explain an example of dynamic programming from the company.
9. Is planning done with any probability or statistical approach in the company's production or sales processes? If not, do you make a model?
10. What are the algorithms applied in the company and their data structures?
11. Analyze the recursive processes in the company.
12. What are the functional and non-functional requirements in the firm? Indicate the differences between these requirements.
13. What are the web tools used in the company?
14. Analyze a problem, project or process that can be analyzed with decision trees in the firm. Explain the details of the decision tree method.
15. Build the company's interdepartmental relational structure using diagrams.

**QUESTIONS REGARDING WAP 326 COURSE (3rd CLASS 2nd SEMESTER)**

1. What kind of data is recorded in the company?
2. What are the transactions made on the data held in the company? Discuss which data mining methods can be applied in addition to these processes.
3. Does the company have a database system where data is kept? If yes, please give brief information about the database management system in your company.
4. What are the transactions carried out on paper or excel in your company? Make a system suggestion to make them more effective.
5. What are the processes in your company that can be improved by making future predictions based on existing data? Discuss what predictions can be made on these processes.
6. Which topology architecture is used in your company? Examine the architecture.
7. Examine the server system structure used in your company. Examine the backup systems.
8. Which internet service provider is your company? Radiolink etc. used for backing up the internet. Check if there are systems.
9. Which applications work with intranet over the network in your company? Investigate why it was preferred to work over the intranet.
10. What are the software developed in your company and for what purpose are they used?
11. What are the standards applied in software development in your company?
12. What is the hierarchical structure followed in software project development in your company and what are the duties of the personnel?

**QUESTIONS REGARDING WAP 425 COURSE (4th CLASS 1st SEMESTER)**

1. Which firewall is used in your company? Investigate its features and functions.
2. What are the system security processes that your company regularly monitors? Discuss the problems encountered and the solutions made.
3. When was the last penetration test performed in your company? In this test, which subsystems were examined in general and what kinds of vulnerabilities were identified?
4. What antivirus software does your company use? Investigate the capabilities of this software.
5. Does your company have unprocessed data? If so, examine what kind of future inferences can be made on these data and what kinds of artificial intelligence methods can be used.
6. Are robots used in your company? If so, what functions does it perform?
7. What operating systems are used in your company? Which of these are used in server systems? Investigate the reasons for preference.

**QUESTIONS REGARDING WAP 426 COURSE (4th GRADE 2nd SEMESTER):**

1. Identify the processes that have not turned into information processing processes in the entire enterprise and are still carried out manually or by exchanging long e-mails. From these processes, choose a basic business process that will be the most effective for your company patron, consultant or the analysis you will make in the company, and converting it into information processing processes for the company.
2. Make a process description showing the inner workings of the business process you have chosen using the appropriate method. In case of problems in the conversion of the business process you have chosen to the information processing process, if there are any, carry out a study with the business analyst of the company to solve these problems.
3. In order to determine the flow of the business process you have chosen, show the relations between the sub-processes with the appropriate method.
4. Identify the data used by the business process you have chosen, using appropriate methods.
5. Determine the most appropriate software process model to convert your chosen business process into software.
6. Make a step-by-step project planning for the software project.
7. Identify the resources needed for the project.

**EVALUATION QUESTIONS**

1. Please describe the work you have done in one day, on average, during this internship.
2. Write down how you feel in the company as a candidate engineer, covering one day at the beginning, middle and end of the internship.
3. Do you find this practical study instruction given to you sufficient?
4. If there are topics and questions you want to add, you can add them and answer these questions.
5. Indicate the contributions (positive/negative attitudes) of the personnel in the enterprise to your practical work.

**APPENDIX 1 1**

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