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**ÜSKÜDAR UNIVERSITY**



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| **FACULTY OF ENGINEERING AND NATURAL SCIENCES**  **ONLINE INTERNSHIP NOTEBOOK** |



**FACULTY OF ENGINEERING AND NATURAL SCIENCES**

Name Surname : Faruk Özkan

Department : Software Engineering

Grade : 2

Student Number : 170209007

Internship Subject : Online Examination System (Web Development)

Start Date : 03/08/2020

Finish Date : 28/08/2020

Summary of the Internship From ...03/08/2020... Until ...28/08/2020...

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| --- | --- | --- | --- |
| DATE | DAY | INTERNSHIPS | Page No |
| 03/08/2020 | Monday | I did some research to find out what I need for the ptoject | 1 |
| 04/08/2020 | Tuesday | I started to learn HTML | 2 |
| 05/08/2020 | Wednesday | Today I improved my HTML knowledge and took a look at CSS and Bootstrap | 3 |
| 06/08/2020 | Thursday | Tried to create more complex structures | 4 |
| 07/08/2020 | Friday | I started to learn the basics of PHP | 5 |
|  |  |  |  |
| 10/08/2020 | Monday | Today I learned some methods of PHP | 6 |
| 11/08/2020 | Tuesday | I learned how to create my own functions in PHP | 7 |
| 12/08/2020 | Wednesday | Today I learned loops of PHP | 8 |
| 13/08/2020 | Thursday | Today I learned if statement and switch case of PHP | 9 |
| 14/08/2020 | Friday | I learned how to use PhpMyAdmin panel for database | 10 |
|  |  |  |  |
| 17/08/2020 | Monday | Today I learned PDO database connection | 11 |
| 18/08/2020 | Tuesday | I designed my project and started to create index.php for my project | 12 |
| 19/08/2020 | Wednesday | Today I implemented registeration page | 13 |
| 20/08/2020 | Thursday | I implemented instructor panel | 14 |
| 21/08/2020 | Friday | I implemented student page | 15 |
|  |  |  |  |
| 24/08/2020 | Monday | Today I implemented exam creation system | 16 |
| 25/08/2020 | Tuesday | Today I implemented exam taking system for students | 17 |
| 26/08/2020 | Wednesday | I implemented grade calculation system | 18 |
| 27/08/2020 | Thursday | Tested project and fixed bugs | 19 |
| 28/08/2020 | Friday | I Bought a domain name and uploaded project to a hosting | 20 |

# DAILY REPORT

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| Internship: I did some research to find out what I need for the ptoject | Page No: 1 |

Before this porject, I have never developed a web application whic means I have no experience and I have no idea how to develop an online examination system. I did some research to find out how to do this and what will I need fort his project. I searched for programming languages, frameworks, libraries, database systems and some examples of basic examination systems. First, I thought of using c# programming language and .NET MVC to develop this system. I searched a few sources to get some idea about c# and .NET MVC but I decided not to use them because I thought I will have to spend too much time to learn them. And not only them, but also I have to learn Microsoft SQL. I searched for alternatives and I decided to learn PHP and MySql for this project because I think I will learn them quick and finish the project in a short time. Then I searched for online courses to learn PHP and bought one.

# DAILY REPORT

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| Internship: I started to learn HTML | Page No: 2 |

Today I started my online course to learn PHP but first lectures of the course is for learning HTML. I learned what is html, what does html do, and some basic tags of html . I tried using thoose tags by myself and created some texts, links, basic tables, forms and input areas. At the beginning of the course, it seemed complex to me to write html because I am not used to write something like <div> and write </div> to close it. Nearly every tag in html has an openning and closing code. While I’m trying to write some things, I got confused about nested tags, closing tags and which tag does what. Whole day I did practice on html to get used to use it clearly. I also learned charset=”utf-8” command to set characters.

# DAILY REPORT

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| Internship: Today I improved my HTML knowledge and took a look at CSS and Bootstrap | Page No: 3 |

Today I tried to write more complex HTML codes with some CSS codes. The online course that I’m following is teaching how to use some Bootstrap components in our pages to make them look better. I watched Bootstrap lectures and tried to use some of the components that I saw in the videos. I faced some issues and I distrupted the codes while trying to solve the issues. I searched on internet to solve issues and I found some helpfull expressions on stackoverflow website. I learned what I did wrong and how to fix it. I fixed them and I created beautiful cards, containers, forms and colorful buttons.

# DAILY REPORT

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| Internship: Tried to create more complex structures | Page No: 4 |

I continued to online course videos and learned more about using Bootstrap. The teacher of the course gave some homeworks to make me improve myself, way of thinking on codes and get experienced about Bootstrap before starting PHP courses. I tried to make the homeworks. Some were difficult and I couldn’t do at the beginning but I tried hard and searched on internet for more tips and informations. I successfuly completed the homeworks and I felt I got used to write html codes and use bootstrap. I feel I’m ready to start PHP.

# DAILY REPORT

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| Internship: I started to learn the basics of PHP | Page No: 5 |

Today I started to learn basics of PHP, how to define variables, assign values, make mathematical calculations, how to use arrays and how to print something on the screen using echo command. Also I learned print\_r command to print arrays and to make them look better using <pre> </pre> commands. And then I learned how to use HTML and PHP codes together in the same page like printing a PHP varieble on screen using an HTML code by the help of echo command which is written in an html block but written between <?php ?> tags.

For example :

<?php $text = “This an example text”; ?>

<h1> <?php echo $text ?> </h1>

Theese codes above, prints a PHP varieble inside an HTML command and it gets written by HTML codes altough it is a PHP variable.

# DAILY REPORT

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| Internship: Today I learned some methods of PHP | Page No: 6 |

Today I learned some ready methods/functions of PHP.

sort(); function sorts the elements of an array. If elements ara numeric variable, it sorts increasing. If they are strings, it sorts from A to Z.

rsort(); function makes reverse sort. Decreasing for numeric values and Z-to-A for Strings.

in\_array(); function takes 2 parameter. First one is the value that we are looking for, second one is the name of array. If the value exist in array, it returns 1, otherwise it returns 0.

implode(); function puts all elements of an array together. For example, for 1,2,3 values it gives 123 and for s,t,r,i,n,g values it gives string.

explode(); function does the reverse of what does implode function do.

date\_default\_timezone\_set(); function edits the time setting of the php page. For example: if we give ‘Europe/Istanbul’ as parameter, edits timezone for Istanbul.

date(“d-m-y h:i:s”); gives current time with a format of day-month-year hour:munite:second

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# DAILY REPORT

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| Internship: I learned how to create my own functions in PHP | Page No: 7 |

Today I learned how to create my own functions in PHP language. I created some functions to do some process more quick. I used them in different forms and also I learned how to use HTML codes with PHP functions together. For example to write something long inside an HTML tag like <h1></h1>, I created a function, defined what I want to make this function write, inside an echo method, and write <?php function\_name() ?> inside h1 tags to write it. Whole day I practiced on functions to get used to use them efficiently.

# DAILY REPORT

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| Internship: Today I learned loops of PHP | Page No: 8 |

Today I learned loops of PHP like for loop, foreach loop and while loop to be able to make a process for multiple time. I also learned creating multiple HTML blogs using loops and writing HTML codes inside loops. For example, creating rows for a table, I used loops to create multiple rows in table but I wrote only one row code.

For example:

<table>

<tr>

<th>First header</th>

<th>Second header</th>

<th>Third header</th>

</tr>

<?php for($i = 0 ; $i < 3 ; $i++) { ?>

<tr>

<td>first text</td>

<td>second text</td>

<td>third text</td>

</tr>

<?php } ?>

</table>

This code block generates the row inside php tags for 3 times.

# DAILY REPORT

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| Internship: Today I learned if statement and switch case of PHP | Page No: 9 |

Today I learned how to create if statements and how to create switch cases in PHP. So I could check if a statement is true or false and make process according to its truth situation. And also I created different types of switch cases and used them combined with the things I have learned in previous days. I created complex structures by combining different PHP codes and HTML codes together. Created html forms with php loops, got html inputs into php switch cases, making switch decisions by using that input values and printed some results on screen inside html divs using PHP echo functions inside html label tags.

# DAILY REPORT

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| Internship: I learned how to use PhpMyAdmin panel for database | Page No: 10 |

I learned how to use PhpMyAdmin panel for database. How to create tables, how to edit them, how to add columns and editing some settings of colums like making a column unique, or auto increment for numeric values, how to define default values for columns. To sum up, Today I learned how to use PhpMyAdmin panel for saving my data in database and got used to its interface and some functionalities. So that, I’m ready to learn PDO structures to use sql commands for my project.

# DAILY REPORT

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| Internship: Today I learned PDO database connection | Page No: 11 |

Today I learned PDO database connection process. I learned how to connect my project to my database sql server to save my date inside the tables that I have created on PHPMyAdmin panel. I learned try-catch structures to try to connect database and if connection fails, how to get error message by using catch block. And learned some functions like prepare function, execute function, bind\_value funtion and what should I write inside thoose functions as parameters according to what I want to do like insert for saving data, select for getting data from database, update for changing a date. And I learned how to specificate those command like searching or editing a data according to a specific column name or value like id or name or etc.

For example, to list only one or more data which are created by one user according to users id, we use (“Select \* from tableName where columnName=:desiredName”) inside prepare method. And to give user id into that desired name, we use something like bindValue(':desiredName',$userid). And than we execute the process to reach data.

And I learned that I should write include or require\_once commands to be able to use sql commands inside a page. Require once command for html pages and include function for php pages.

# DAILY REPORT

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| Internship: I designed my project and started to create index.php for my project | Page No: 12 |

Today I finally could start to implementation part of my project. First I designed my project, decided how to implement it and created php pages that I will need during the implementation. And than I started to implement index.php page of my project. When a web browser enters in the direction folder of a website, it finds and executes the index page first. So index.php page will be a kind of homepage of my project. I created a sign in form in index page. Form contains username part as text input, password part as text input but hidden by dots for privicy, a checkbox for remember me fonction and a button for sign in process. And I put a linked text under the button which is seperated by a line from the button and it directs user to registeration page when clicked. It writes “You don’t have an account? Click here to sign up.” as text of the link. So that users which does not have an account, will be able to register to website.

# DAILY REPORT

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| Internship: Today I implemented registeration page | Page No: 13 |

Today I implemented registeration page interface of the website. I created a form which requires entering username,password and selecting user type from checkbox. There ara two types of user which are instructor and student. Below the form, I put a button to submit user informations to the system to save user in database. To be able to do this kind of processes, I created a page called process.php. And also I created a page called database\_connection.php to make database connection for my project. I wrote database connection codes and I wrote include function inside process.php page to be able to do database processes inside this page. Wrote some codes to get registeration informations from registeration page and to do user saving process into database using sql commands. I tested registeration and it works correct. And than, inside process.php, I wrote sign in process. Made system control if username which is entered in sign in part exist or not. If not exist, created a notification in index.php so that user will be informed about that username does not exist in the system. If username exist, system gets the password of user and compares it to entered password in sign in part. Warns user if password is incorrect. If correct, directs user to the user page according to the user type. If usertype is instructor, directs to instructor\_page.php, if student, directs to student\_page.php.

# DAILY REPORT

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| Internship: I implemented instructor panel | Page No: 14 |

Today I implemented instructor\_page.php as an instructor panel for instructor usertype. On the top of the page, I put two buttons. One for log out and other for create exam. When instructor clicks crate exam button, button triggers a modal, like pop-up. Inside modal I put two input part for entering exam name and question number of exam. After entering those informations, if instructor clicks create button, I directed page to question adding page which I will implement this page later. And also in instructor panel, every instructor can see exams which are created by themselves. Instructors can only see their exams, not the exams created by other instructors. To do this I implemented a session system. When a user signs in, system creates a session and holds user informations. According to id of instructor, the code that I wrote searches in database for exams which are created by instructor that has the same id with the id that was holded in session while user signing in. So it lists only the exams of instructor.

# DAILY REPORT

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| Internship: I implemented student page | Page No: 15 |

I implemented a student page for student usertype to let them see all of the exams in the system. On the top of the page, I put a button for log out. This and the instructor panels log out button trigger a block of code in process.php to end session. On middle part of the page, I created a table to show the exams to the student. At the background, table searches database to get exams and show exam informations to user. Also this table and the instructor panels table is created by while loop. While there is an exam to Show according to conditions, it creates a table row and puts exam informations inside columns of the row. And every row has a button to let student take that exam. Buttons directs user to examination page which I will implement it later.

# GÜNLÜK RAPOR

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| Yapılan Staj: Today I implemented exam creation system | Sayfa No: 16 |

Today I implemented exam creation system for instructors. Inside instructor page, yesterday I have written a bunch of codes to allow instructor to create exam. When instructor clicks on create exam button, a pop-up page requires instructor to enter exam name and question number. And when create button is clicked, it sends exam name and question number informations to the process.php page. Inside process.php, I wrote some codes to save exam on database with its name, question number and its id number which is automaticly created and it is unique. Every id in the system is being controlled to be unique. And then system directs user to question adding system. There is content of question part, 4 multiple choise part which are named as option a, option b, option c and option d, correct answer choise part as a dropdown selection, and defining point of question part. At the end of the question adding page there is a button for saving question. Every time user clicks this button, it sends question informations to process.php to make it save question to the database. Every Question is being saved with id of exam that it belongs. And while existing Question number of exam is less than the Question number which is entered by instructor before, system directs instructor to Question add page again. When all questions are saved, than instructor gets directed to instructor panel again and the exam list in panel gets updated. So instructor can see the exam that he/she created.

# DAILY REPORT

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| Internship: Today I implemented exam taking system for students | Page No: 17 |

Today I implemented exam taking system for students. As I implemented the student page before, students can see all of the exams in the system. Every row constains one exam and at the end of every row of the table, there is a button to take exam. When a students clicks that button it directs student to exam taking page. Today I implemented the exam taking page. At the background of the page, I designed a loop and wrote some codes inside this loop. Loop is being executed for x times and x number is being checked from database from question number columns of the related exam. So every turn of the loop, system prints the next question of the exam that is read from database. After printing every uestion, an answer dropdown is being generated tol et student choose an option from option A to option D. This process goes until every question of the exam is printed. And after the loop ends, I wrote a button to submit the exam. When student clicks on this button, system sends answers of student and the correct answers of question to a grade calculation page which I will implement it later.

# DAILY REPORT

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| Internship: I implemented grade calculation system | Page No: 18 |

Today I implemented grade calculation system to get informations has been sent from examination.php and calculate the final grade of the student. I wrote a loop again and inside this loop, I generated variables to hold correct answer of question and the answer which is given by student. Inside an if statment I compared that two answers and if student gave correct answer, grade value gets added by the point value of the question which is read from the database. And so, at the end of the loop, final grade of the student gets send to the student page and system directs student to this page ass well. I wrote a bunch of code inside student page to catch the final grade of student which is send from grade calculation page. It reads the grade and notifies student, prints grade value inside notification.

# DAILY REPORT

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| Internship: Tested project and fixed bugs | Page No: 19 |

Yesterday was the last day of implementation duration of my project. Today I tested my system many times to see bugs and errors to fix them. A few bugs showed up and editted my codes to fix bugs. Also while I tried to create an exam system gave en error. I checked my codes and found what causes the error and than I fixed the problem editing my codes. At the end of the day, system Works clearly, without any errors or bugs. So finished my project today. Tomorrow I will buy a domain name and I will upload my project to a hosting. My project will become a real life project and a real website which is an online examination system.

# DAILY REPORT

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| Internship: I Bought a domain name and uploaded project to a hosting | Page No: 20 |

Today I bought a domain name for my project. The name of my website is myexam.website . I directed my new domain name to a hosting server that I rented. I created a database in hosting and upload my localhost files on hosting server. I changed the database\_connection.php page to connect to the server that I will upload my files on. And then I uploaded all the files to the server and I have done some settings on server. And now when I enter myexam.website on my web browser, my online examination system shows up and works clear. Today is the last day of my online internship and I’m proud of myself of creating this system. It really Works clear and I learned so many things thanks to this project like PHP,HTML, a litle bit CSS, MySql and PDO, PhpMyAdmin,Bootstrap and more.

**THE INTERNSHIP EVALUATION FORM OF THE INTERNSHIP COORDINATOR**

**Student**

Name Surname : Faruk Özkan

Department : Software Engineering

Grade : 2

Student Number : 170209007

Start/Finish Dates : 03/08/2020 – 28/08/2020

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| **Evaluation Criteria** | **Very Good** | **Good** | **Moderate** | **Insufficient** |
| Proper Use of the Internship Notebook |  |  |  |  |
| Effectiveness of Daily Reports |  |  |  |  |

# Evaluation of the Internship

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| **SUCCESSFUL** |  |
| **UNSUCCESSFUL** |  |

**Faculty Member**

Name Surname :

Department :

Signature :

Date :

# Internship Commission:

|  |  |
| --- | --- |
| **Title, Name Surname** | **Signature - Date** |
| **1-** |  |
| **2-** |  |
| **3-** |  |

**NOTE: This form will be filled in by the relevant internship coordinator after the notebook is delivered at the end of the internship.**