

IMRAD

Creating database management system for school .

*Prepared by:*

Abisheva Dayana

*Teacher:*Aidana Kalakova

Nur-Sultan,2020

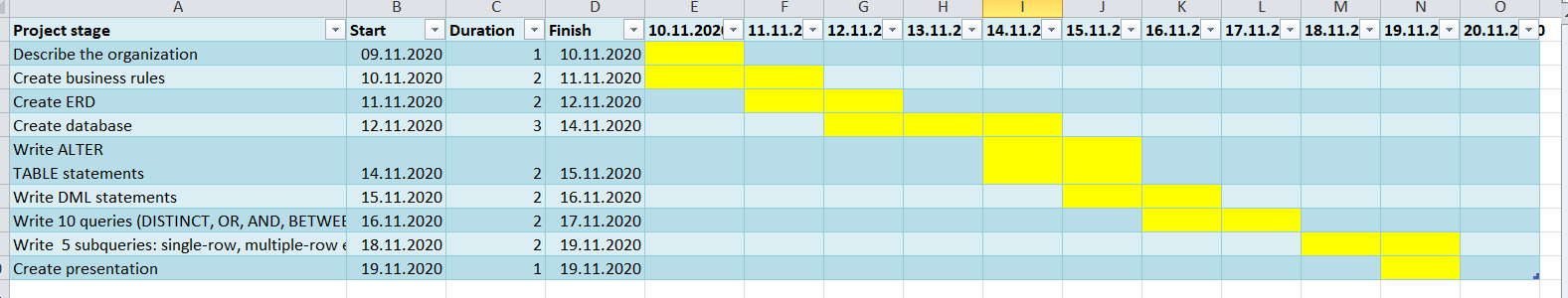
IMRAD – Introduction, methodology, results and discussion

1. Introduction

Recently, it has been found that about 45% of schools in Kazakhstan use the file system. Basically, all these schools are faced with many problems that lead to errors in the system. One of the problems is the inconvenient use of the system for teachers, administrators and the school principal. Therefore, the best solution for this situation is to create a database for the school. A database management system (DBMS) is a software package designed to define, manipulate, retrieve and manage data in a database. The old school file system can lead to file redundancy, but this is prevented in the database because there is one database and any change to it is immediately reflected. Because of this, there is no way to run into duplicate data. Thus, it is safe to say that the first benefit of a database system is the reduction of data redundancy. Also very important is the data exchange, which is also provided by the database. In a database, database users can exchange data with each other. Which is very convenient for all schools. In addition, the DBMS ensures absolute data integrity. Data integrity means that the data in the database is accurate and consistent

2.Methodology

The database for the school will become a comfortable environment for not only school staff, but also for students. Students can check their grades at any time and teachers can check student attendance and progress.



3.Daily progress:

09.11.2020:

The first lecture was devoted to selection operators in the C ++ language, the lecture was delivered by Yekaterina Burkeeva, a teacher at IT University Astana, in which the main provisions, variables, basic data types, and operators were explained. At the beginning of the lecture, the lecturer explained the purpose of selection operators and emphasized that these operators are considered as the basis of programming. The lecture touched upon basic informational and practical issues. Students also asked questions of interest to them.

The main information obtained from the literature review was about the school's requirements and the database that each school needs. The benefits of using the database at school were also discussed.

The last lecture given during the day was delivered by guest lecturer Vladislav Lukyantsev about his experience at Google. The lesson was very interesting and useful for those who want to work for Google or another large corporation in the future. In this lecture, many of the benefits of working at Google were announced. The lecturer also told what needs to be done to get a job there.

10.11.2020:

The first lecture was devoted to the selection operators in the C ++ language, the lecture was given by the teacher of the ICT Department of the Astana IT University Mugzar Akizhanov, where the if, if-else and ternary operator were explained. At the beginning of the lecture, the lecturer explained the purpose of selection operators and emphasized that these operators are considered as the basis of programming. The lecture touched upon the main informational and practical issues.

During the day, a part of the project was completed, where a literature review on the selected topic was carried out. During the day was completed with a diagram under the project and the business rules.The last lecture given during the day was delivered by Guest Lecturer Fyodor Zaitsev about his experience in IT sphere. The lesson was very interesting and useful in terms of understanding real life. It turned out that you can apply for an internship where you can get a lot of experience in the IT field. This lecture provides a general description of the IT staff as well as a rough outline for the future career of IT professionals.

11.11.2020:

On the third day of practice, we were taught by a C ++ teacher Aidana Kalalova from Astana IT University. At the beginning of the lecture, the lecturer explained the purpose of loops and emphasized that these statements are considered the basis of programming. We solved the problems on this topic, and also discussed the issues of interest to us. The lecture was understandable. After that, a lecture on the project began, at which we discussed issues related to the project, and the lecturer explained to us how to make 1 part of our project. After the lecture, 1 part of the tasks was sorted out and the bigram was corrected.

Irina Possokhova was the lecturer at the last lecture. She explained how to get a job in an IT company and also told what skills you need to have. In addition, the requirements for working in IT companies were analyzed. The lecturer also explained which companies would best influence your experience.

12.11.2020:

The fourth day of our practice began with a lecture on C ++. Our lecturer was Beibut Amitrgaliev, a teacher at Astana IT University. At the beginning of the lecture, the lecturer explained the purpose of one-dimensional arrays and emphasized that one-dimensional arrays are considered as the basis of programming. The lecture covered basic informational and practical issues. We also sorted out the questions of interest to us and sorted out several complex examples. Further, tables were made for the project.

In the last lecture, I learned about the experience in HSCI and also about working at Google. The lecturer was the software engineer Kuttybaev Mansur. The main questions were sorted out such as: What experience in the IT sphere do you need to have to work in Google? or what level of English should you have?

13.11.2020:

On the fifth day of practice, we took a course on multidimensional arrays with Azamat Ordabekov. At the beginning of the lecture, the lecturer explained the purpose of multidimensional arrays and emphasized that multidimensional arrays are considered as the basis of programming. The lecture touched upon the main informational and practical issues. Further, tables for the project were compiled and filled in. Fixed schema and business rules.

In the last lecture, we were told about the future of mobile development. The lecturer was Kalieva Kyrmyzy, she works as an Advanced Android Engineer. We have sorted out this topic and the questions of interest to us. The lecturer told us what the future of mobile development is and how it can affect many things.

16.11.20:

On the sixth day, our first lecture was C ++ on the topic of functions and arguments, header files. Our lecturer was a teacher at Astana IT University Olzhas Aimukhambetov. In this lecture, I learned how functions are used, and we also analyzed tasks using the arguments and functions of the header file. After that, I started making my project. I entered information into each table and then worked with it using various operations such as: UPDATE, DELETE, INSERT, ALTER TABLE. Then I started a lecture on IT entrepreneurship. Our lecturer was Dauren Malaev, Head of Project Development at Chocotravel. He spoke about IT in business and also about who can get a job and where. In addition, I learned the average salary of an IT specialist and what level of English you need to know to work in this area.

17.11.2020

The seventh day of practice began with a lecture on c ++, the topic is pointers. Our lecturer was Aigerim Essenbaeva, she explained the topic to us, told the presentation, and we immediately started the assignments. The practice was very useful to me, in it I learned a lot of new things, since I did not quite understand this topic before.

The lecturer further explained the purpose of pointers and emphasized that these operators are considered the core of programming. The lecture touched upon the main informational and practical issues.

Then I started my project. In the project, I wrote at least 10 queries: using DISTINCT conditions (<,>, =), OR, AND, BETWEEN, IN, LIKE, LENGHT, COUNT, MAX, MIN, SUM, AVG,INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL

JOIN and so on. After that we started the last lecture on "how to become an interface designer". The lecturer of this lecture was Shkunarskaya Maria. She explained to us the job of a website designer and how to become one. In addition, the lecturer told us what new features and qualities you need to have in order to be an interface designer.

18.11.2020

The eighth day of our practice began with a lecture on s on the topic of pointers 2. The lecturer of our lecture was Rasul Kairgeldin. In this lecture, we continued to study and repeat pointers. In addition, we analyzed complex tasks and questions of interest to us. The lecturer told us how to use pointers and why we need them. I understood the main purpose of the pointers in s.

After that I worked on my project. I wrote at least 5 subqueries: single row, multi-row subqueries with multiple columns, etc. I also corrected my past assignments and corrected mistakes. Next, we had a lecture on the topic of Ganre Developrnent in Unity by using C #. The lecturer of this lecture was a teacher of Astana IT University Ruslan Omirgaliev.

19.11.2020

The ninth day of practice began with a lecture on C ++, the topic of which was structures. Askar Khaimuldin was the lecturer of our lecture.

At the beginning of the lecture, the lecturer explained the purpose of structures and emphasized that structures are considered one of the foundations of programming. The lecture covered basic informational and practical issues.

After this lecture, I started my project. First, I made a presentation in which I fully described my project. Then I fixed a couple of tasks and fixed the mistakes. I've read a couple of articles about the benefits of a database. After that, I began the last lecture on success stories: how dreams turn into reality. The lecturer of this lecture was Gulnara Abitova, teacher of Astana IT University. She told us about how to go to your goal and achieve everything you want without stopping.

20.11.2020

So, on the last day of practice, my project was ready. So, the day, as usual, began with a lecture on C ++, in which we learned about strings and their use. The lecturer of our lecture was Abulkhair Zhamiev. At the beginning of the lecture, the lecturer explained the purpose of assertions and emphasized that these assertions are seen as the basis of programming. The lecture covered basic informational and practical issues. I also listened to a lecture by Professor Prashant Jamwal on the future of mobile development.

Conclusion

These were very intense and interesting 10 days of practice. I learned something new every day. During the writing of my project, a lot of topics were studied that came in handy. All the topics studied were very interesting and understandable. Sometimes there were difficulties in writing a project, but I was helped by various sites on the Internet that helped me with solving these problems.

***References***

1. ***Cathie Wilson. (2016, January 28). ERD and Business Rules. YouTube. https://www.youtube.com/watch?v=-e7yQc\_WgZY***
2. ***AmpCode. (2020, October 2). SQL Basics | SQL Introduction Tutorial in 15 mins | Learn SQL. YouTube.*** [***https://www.youtube.com/watch?v=Cjy5egFrBBk***](https://www.youtube.com/watch?v=Cjy5egFrBBk)
3. ***freeCodeCamp.org. (2018, July 2). SQL Tutorial - Full Database Course for Beginners. YouTube. https://www.youtube.com/watch?v=HXV3zeQKqGY***
4. ***Live Coding School. (2018, August 30). Mysql просто INNER JOIN, LEFT JOIN, RIGHT JOIN. YouTube. https://www.youtube.com/watch?v=AQEOugimiYc***
5. ***Niels Henrik Juul Hansen. (2014, August 28). SQL INNER JOIN explained. YouTube. https://www.youtube.com/watch?v=wz6XnW9nk4w***