

Module ICT3715

INFORMATION AND COMMUNICATION TECHNOLOGY PROJECT

| | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|--|--|
| STUDENT NUMBER (Student completes) | | | | | | | | | |
| 6 | 9 | 7 | 2 | 3 | 4 | 0 | 0 | | |

| | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|--|--|
| IDENTITY NUMBER (Student completes) | | | | | | | | | | | | |
| 9 | 8 | 0 | 3 | 1 | 1 | 0 | 0 | 1 | 5 | 2 | | |

No handwritten assignments will be accepted.

INSTRUCTIONS:

Complete this Front Page (page 1)

Complete the Plagiarism Pledge (page 2). Your assignment will not be assessed without this.

After you have completed the front page with your information, the plagiarism pledge, and Assignment 3 with Section A and B, save the document as a PDF document.

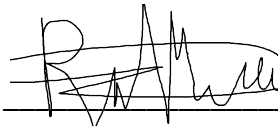
Keep a copy of the original should there be problem with the upload.

PLAGIARISM PLEDGE BY THE STUDENT

1. I have read Unisa's plagiarism policy.
2. I understand Unisa's plagiarism policy.
3. I agree to abide by Unisa's plagiarism policy.
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5. I understand what direct copying, plagiarism, and "patch-writing" is.
6. I undertake to avoid copying directly, plagiarism and patch writing.
7. All academic work, written or otherwise, that I submit is expected to be the result of my own skill and labour.
8. I understand that, if I am guilty of the infringement of breach of copyright/plagiarism or unethical practice, I will be subject to the applicable disciplinary code as determined by Unisa.
9. The marker has the right to refuse to assess the assignment and the system if plagiarism is detected.

Student name and Surname: Ruan van der Merwe

Student number: 69723400



Student signature:

2022-08-08

Date:

Assignment 3 [848069]

Due date Monday 8 August 2022, 11:00 PM

Notes:

This is a compulsory assignment. The assignment contributes to 40% of your year mark.

System | Online examination file submission system

Due to the pandemic, the University of South Africa (UNISA) has decided to conduct all examinations in an online environment.

The purpose of this project is then to look at the digital environment and design and develop a simulation of such a system, using the real-life scenario and environment.

You thus must design and develop an online examination file submission system, that can be presented to the University to be used as an alternative to the current system.

Note: You are not allowed to develop any other system or use any other data that was not prescribed or provided to you.

The outcome of this assignment will form part of the design, development, and implementation of the database and the system. Your implementation effort will be greatly reduced if you take care with the preparation phases of the system.

Instructions:

- ❖ Make sure that you did complete the instructions on page 1 of this document
- ❖ Complete the header and footer with your own information
- ❖ Add your practical system content to the document
- ❖ Remove everything that is in brackets []
- ❖ Keep the answers that you had for the Assignment 1 and 2 also in this document
- ❖ Make sure that your Table of Content is updated
- ❖ Save the document as PDF, e.g., 12345678_ICT3715_03.pdf, (replace 1234568 with your student number)
- ❖ When you are done submit via myModules 2022 on the Module Site under Assignment 3

Table of Contents

| | |
|--|-----------|
| 1 Assignment 3 | 7 |
| 1.1 Section A = MIS Reports [20] | 7 |
| 1.1.1 Create the Daily MIS report (5) | 8 |
| 1.1.2 Create the Weekly MIS report (5) | 8 |
| 1.1.3 Create one other MIS report (5) | 9 |
| 1.1.4 Create one other MIS report (5) | 10 |
| 1.2 Section B = Graphical User Interfaces [20] | 11 |
| 1.2.1 Main Page | 12 |
| 1.2.2 Student login GUI (7) | 13 |
| 1.2.3 Lecturer login GUI (7) | 14 |
| 1.2.4 Exam Department (Staff member) login GUI (6) | 15 |
| Section A = Database [20] | 16 |
| Create the database for your system and importing the data from your .csv file (20) | 16 |
| Section B = Backup and Recovery for the Database and Programming code [10] | 24 |
| Database (5) | 24 |
| Programming code & Portfolio (assignments) (20) | 25 |
| Assignment 1 | 26 |
| Section A [4] | 26 |
| Programming Languages (2) | 26 |
| Database (2) | 26 |
| Section B [10] | 26 |
| Cleaning the data | 26 |
| Section C [10] | 27 |
| Activity Diagram (7) | 27 |
| ERD Diagram (3) | 28 |
| Section Backup and Recovery for the Database and Programming code [6] | 28 |
| Backup and Recovery Software for the Database (3) | 28 |
| Backup and Recovery process for the Programming code and your Portfolio assignments) (3) | 28 |

1 Assignment 3

1.1 Section A = MIS Reports [20]

[Use Task 2 Document – Preparing for the MIS Reports to complete this section of Assignment 3.



For purposes required by the Examination Department, the following MIS Reports must be presented in your systems dashboard:

One Daily MIS report

One Weekly MIS reports

At least two more MIS reports

Also refer to “19. 10. System | MIS Reporting: Dashboard” on the myModules 2022 Module Site.

For each of these MIS reports you have to do the following:

- ∂ In your own words, describe the reason for this MIS report.
- ∂ Create the query (the SQL).
The query should be specific and the names of the tables that you use, columns, joints (PKs, FKs) etc. should be clear and precise.
- ∂ Run the query to get an output.
- ∂ You need to provide the marker with each of these queries as well as screen dumps of the output (both the actual data and should you use graphics a screen dump of the graphic as well).

Again, remember, a report is NOT a looooong list of data.

1.1.1 Create the Daily MIS report (5)Reason

Number of students per module on a day.

0.5

Query

```

SELECT T.ModuleCode,
       MI.Description,
       T.Cnt StudentCount
FROM ( SELECT ModuleCode, COUNT ( * ) Cnt
      FROM ExamOutput
      WHERE DateExam = '2022-11-10'
      GROUP BY ModuleCode ) T
LEFT JOIN ModuleInfo MI ON MI.ModuleCode = T.ModuleCode

```

0.5

Screen dumps

| Message | Summary | Result 1 |
|------------|-----------------------------|--------------|
| ModuleCode | Description | StudentCount |
| ▶ AST2652 | Accounting Sciences II | 324 |
| ENG1011 | Engineering Methods | 335 |
| ICT2612 | Internet Programming II | 316 |
| MAT2612 | Mathematics II | 316 |
| ICT1111 | Introduction to Programming | 341 |

0.5

**1.1.2 Create the Weekly MIS report (5)**Reason

Individual Students Writing This week

2

Query

```

SELECT T.StudentNumber, Student.Name, T.NumberOfModules
FROM (SELECT StudentNumber, COUNT ( * ) NumberOfModules
      FROM ExamOutput
      WHERE DateExam BETWEEN '2022-11-14' AND '2022-11-21'
      GROUP BY StudentNumber ) AS T
LEFT JOIN StudentInfo Student ON Student.StudentNumber = T.StudentNumber
ORDER BY StudentNumber

```

2



Screen dumps

| StudentNumber | Name | NumberOfModules |
|---------------|--------------------|-----------------|
| 11162384 | QP KALENGA | 1 |
| 11207520 | UU MAPHUTHA | 1 |
| 11260693 | EU UBISI | 2 |
| 11261613 | PT NGQENGELELE | 2 |
| 11276374 | QD MACHETE | 2 |
| 11286271 | TN MMOLOTSI | 2 |
| 11296841 | EX MPHABLELE | 1 |
| 11348843 | UX SEWNARAIN | 1 |
| 11447994 | VJ MHLONGO | 1 |
| 11477936 | SR HANKEY | 1 |
| 11483332 | XO CHARUMBIRA | 2 |
| 11490131 | W MOKOENA | 2 |
| 11492193 | EP GILL | 1 |
| 11523952 | UD CHINYANGA | 1 |
| 11533815 | U MANGOUA MENDJIYA | 1 |
| 11536884 | PB MTJWARA | 1 |
| 11582146 | KM MAPHWANYA | 1 |
| 11627788 | JD WILLIAMS | 1 |
| 11628404 | OA MAPETA | 1 |
| 11634229 | Z NKHUMELENI | 2 |
| 11641994 | FK MPHABLELE | 2 |
| 11642685 | KW VAN DER MERWE | 2 |
| 11648513 | ZS THURAYAKGOSI | 1 |

**1.1.3 Create one other MIS report (5)**Reason

Staff Members On Duty On A Day

Query

```
SELECT T.ModuleCode,
       SI.Initials,
       SI.LastName,
       SI.Email
FROM ( SELECT ModuleCode FROM ExamOutput
      WHERE DateExam = '2022-11-14'
      GROUP BY ModuleCode ) AS T
LEFT JOIN ModuleLeader ML ON ML.ModuleCode = T.ModuleCode
LEFT JOIN StaffInfo SI ON SI.StaffNumber = ML.StaffNumber
```



Screen dumps

| ModuleCode | Initials | LastName | Email |
|------------|----------|----------|--------------------------|
| CHE2613 | lm | nkosi | lm.nkosi@unisa.ac.za |
| ENG1015 | fcd | mhalatsi | fcd.mhalatsi@unisa.ac.za |
| ICT1115 | mt | seopa | mt.seopa@unisa.ac.za |

0.5 **1.1.4 Create one other MIS report (5)**Reason

Exams Written Per Module Overall

2 Query

```

SELECT T.ModuleCode,
       M.Description,
       T.ExamsWritten
FROM ( SELECT ModuleCode, COUNT ( * ) ExamsWritten
      FROM ExamOutput
      GROUP BY ModuleCode ) AS T
LEFT JOIN ModuleInfo AS M ON M.ModuleCode = T.ModuleCode
ORDER BY T.ExamsWritten DESC

```

2 Screen dumps

| ModuleCode | Description | ExamsWritten |
|------------|-------------------------------------|--------------|
| ICT1112 | Introduction to GUI | 343 |
| ICT1111 | Introduction to Programming | 341 |
| ENG1015 | Design and Manufacture I | 336 |
| ENG1017 | Engineering Materials | 336 |
| ▶ ENG1016 | Mechanical Design I | 336 |
| ENG1014 | Engineering Numerical analysis | 336 |
| ENG1018 | Engineering Science | 336 |
| ENG1019 | Engineering Practice I | 336 |
| ENG1011 | Engineering Methods | 335 |
| ENG1012 | Engineering Design | 335 |
| ELE2561 | Electrical Engineering II (Theory) | 335 |
| ENG1013 | Engineering Smart systems | 335 |
| CHE4801 | Inorganic Chemistry IV | 334 |
| AST2652 | Accounting Sciences II | 324 |
| CHE2611 | Inorganic Chemistry II (Theory) | 323 |
| CHE181T | Chemistry I (Theory) | 323 |
| CHE2613 | Organic Chemistry II (Theory) | 323 |
| CHE3701 | Inorganic Chemistry III (Theory) | 322 |
| CHE1504 | Introduction to Chemistry I | 322 |
| ICT1114 | Introduction to Databases | 317 |
| ICT1113 | Introduction to Web Application | 317 |
| CHE3703 | Organic Chemistry III (Theory) | 317 |
| CHE3704 | Analytical Chemistry III | 317 |
| ICT1115 | Introduction to Information Systems | 317 |
| ICT2612 | Internet Programming II | 316 |

1 

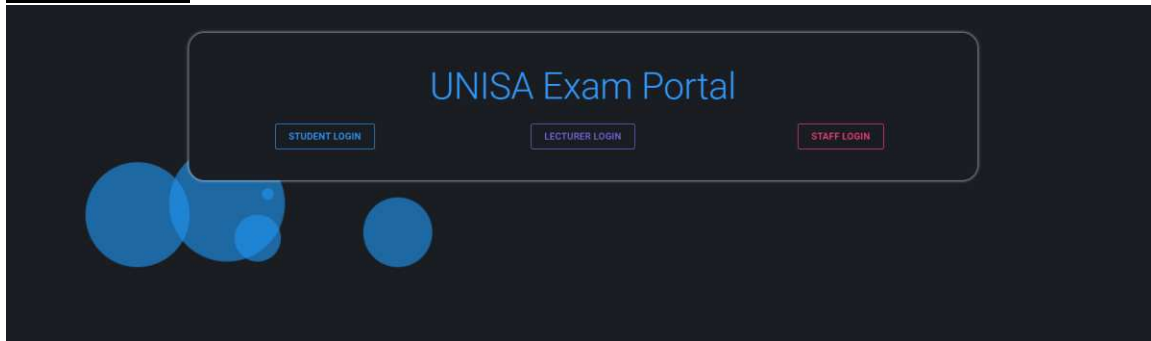
1.2 Section B = Graphical User Interfaces [20]

It is now time to start with the “coding” and create the front-end Graphical User Interfaces (GUI).

1. Create a Graphical User Interface for the student, lecturer and exam department (staff member) to login to the system.
2. When you are done, make a screen dump of the interface, and also provide the code for the GUI.

1.2.1 Main Page

Screen dumps



4

0.5

Code

```
@page "/"

@* Moving Bubbles Background *@
<Background/>

@* Login Container *@
<MudContainer Class="login-container">

    <MudText Color="Color.Info" Typo="Typo.h2">UNISA Exam Portal</MudText>
    @if (View == "")
    {
        <MainView @bind-View="View"/>
    }
    @if (View == "Student")
    {
        <StudentView @bind-View="View"/>
    }
    @if (View == "Lecturer")
    {
        <LecturerView @bind-View="View"/>
    }
    @if (View == "Staff")
    {
        <StaffView @bind-View="View"/>
    }

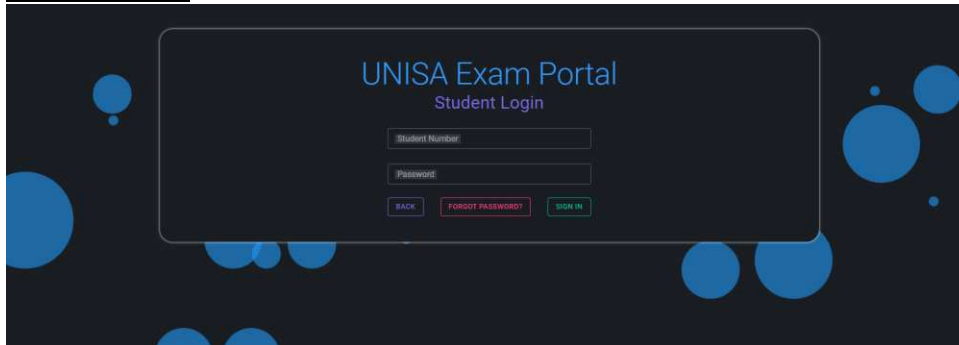
</MudContainer>

@code {
    private string View { get; set; } = "";
}
```

1.2.2 Student login GUI (7)

Creating the Graphical User Interfaces for the Student Login

Screen dumps



4

0.5

Code

```
<MudText Color="Color.Primary" Typo="Typo.h4">Student Login</MudText>

<MudGrid Style="padding-top: 25px">
    @* Number | Username *@
    <MudItem md="4"/>
    <MudItem md="4">
        <MudTextField T="string" Label="Student Number"
Variant="Variant.Outlined" Margin="Margin.Dense"/>
    </MudItem>
    <MudItem md="4"/>

    @* Password *@
    <MudItem md="4"/>
    <MudItem md="4">
        <MudTextField T="string" Label="Password" Variant="Variant.Outlined"
Margin="Margin.Dense"/>
    </MudItem>
    <MudItem md="4"/>

    @* Actions *@
    <MudItem md="4"/>
    <MudItem md="4" Style="justify-content: space-between; display: flex">
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Primary" OnClick="@(_ =>
ViewChanged.InvokeAsync(""))">Back</MudButton>
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Secondary">Forgot Password?</MudButton>
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Success">Sign In</MudButton>
    </MudItem>
    <MudItem md="4"/>
</MudGrid>

@code
{
    [Parameter]
    public string View { get; set; } = "";

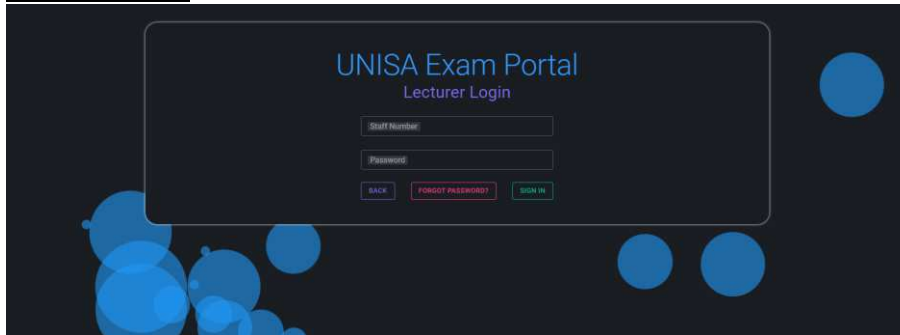
    [Parameter]
    public EventCallback<string> ViewChanged { get; set; }
}
```

1

1.2.3 Lecturer login GUI (7)

Creating the Graphical User Interfaces for the Lecturer Login

Screen dumps



0.5 ✓ 4 ✓

Code

```
<MudText Color="Color.Primary" Typo="Typo.h4">Lecturer Login</MudText>

<MudGrid Style="padding-top: 25px">
    @* Number | Username *@
    <MudItem md="4"/>
    <MudItem md="4">
        <MudTextField T="string" Label="Staff Number"
Variant="Variant.Outlined" Margin="Margin.Dense"/>
    </MudItem>
    <MudItem md="4"/>
        @* Password *@
        <MudItem md="4"/>
            <MudTextField T="string" Label="Password" Variant="Variant.Outlined"
Margin="Margin.Dense"/>
        </MudItem>
        <MudItem md="4"/>
            @* Actions *@
            <MudItem md="4" Style="justify-content: space-between; display: flex">
                <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Primary" OnClick="@(_ =>
ViewChanged.InvokeAsync(""))">Back</MudButton>
                <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Secondary">Forgot Password?</MudButton>
                <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Success">Sign In</MudButton>
            </MudItem>
        </MudItem>
    </MudGrid>

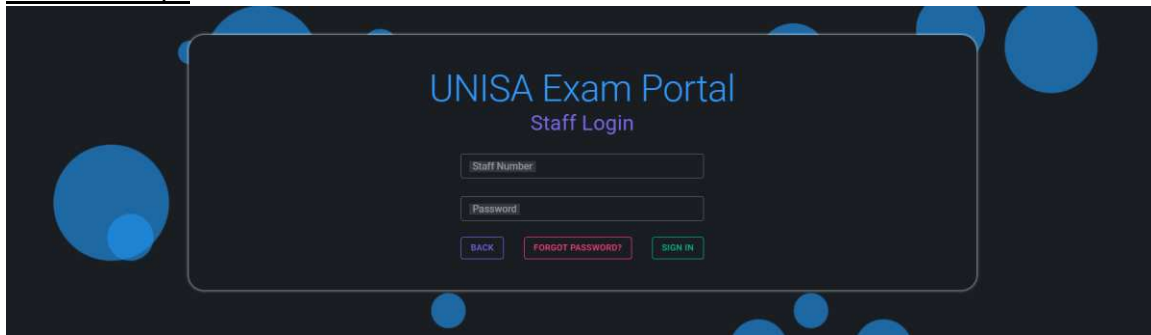
@code
{
    [Parameter]
    public string View { get; set; } = "";

    [Parameter]
    public EventCallback<string> ViewChanged { get; set; }
}
```

2 ✓

1.2.4 Exam Department (Staff member) login GUI (6)

Creating the Graphical User Interfaces for the Exam Department (Staff member) Login Screen dumps



4 ✓ 0.5 ✓

Code

```
<MudText Color="Color.Primary" Typo="Typo.h4">Staff Login</MudText>

<MudGrid Style="padding-top: 25px">
  @* Number | Username *@
  <MudItem md="4"/>
  <MudItem md="4">
    <MudTextField T="string" Label="Staff Number"
Variant="Variant.Outlined" Margin="Margin.Dense"/>
  </MudItem>
  <MudItem md="4"/>
    @* Password *@
    <MudItem md="4"/>
      <MudTextField T="string" Label="Password" Variant="Variant.Outlined"
Margin="Margin.Dense"/>
    </MudItem>
    <MudItem md="4"/>
      @* Actions *@
      <MudItem md="4" Style="justify-content: space-between; display: flex">
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Primary" OnClick="@(_ =>
ViewChanged.InvokeAsync(""))">Back</MudButton>
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Secondary">Forgot Password?</MudButton>
        <MudButton Variant="Variant.Outlined" Size="Size.Medium"
Color="Color.Success">Sign In</MudButton>
      </MudItem>
    </MudItem>
  </MudGrid>
@code
{
  [Parameter]
  public string View { get; set; } = "";

  [Parameter]
  public EventCallback<string> ViewChanged { get; set; }
}
```

2 ✓

Assignment 2

Section A = Database [20]

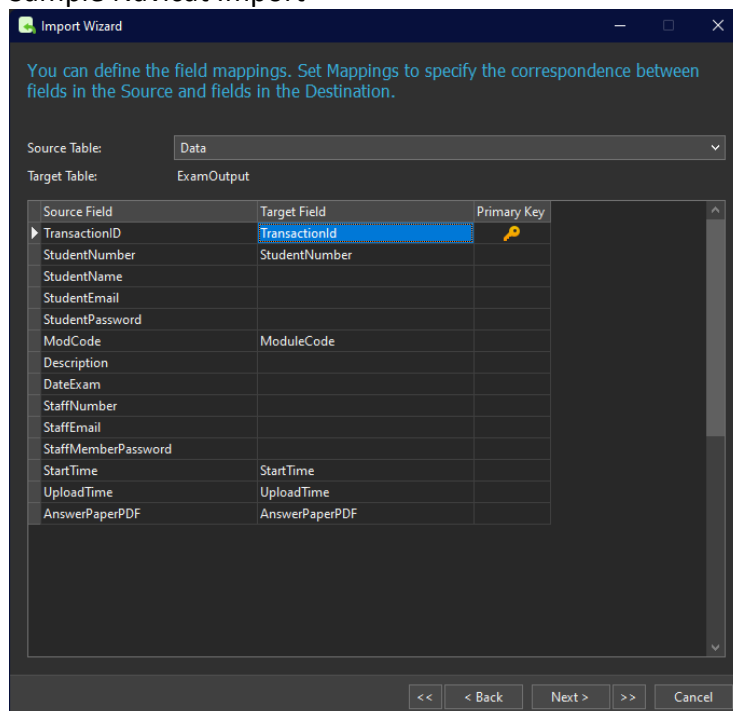
Create the database for your system and importing the data from your .csv file (20)

First, I prepared the data further in the Data.csv. What I have done is, created more sheets (Student, Staff, Module, Student Module, Module Leaders). With this, I copied the necessary data in the specific sheets and removed all duplicates. I then used those sheets to import into my database.

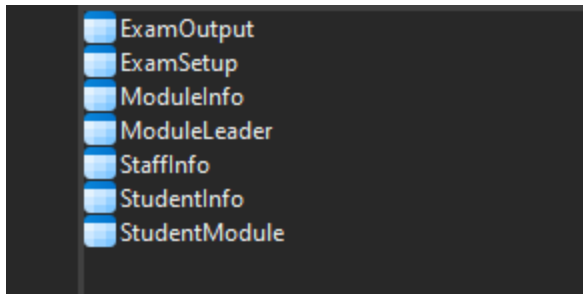
I use Navicat as my database admin tool. I used its Import wizard which allows me to upload an excel file and map Tables with sheets, as well as, map DB Columns with Excel Columns. I first imported all the Students, Staff Members and Modules. With this, I setup the foreign keys and primary keys on all the tables then imported the rest of the tables from the left-over sheets which had foreign keys in them (Module leaders, Student Modules, Exam Output and Exam Setup). With the foreign keys in place and the data imported afterwards, I know that the data was not dirty. The only problem I had, is that I did not have an ExamPaper column with data in it for the table ExamSetup. So, I imported the data, allowing nulls for that column, and performed SQL updating the fields with string manipulation. "MODCODE_YYYY-MM-DD_Exam.pdf".

Screenshots:

Sample Navicat Import



Database Tables in Navicat



ExamOutput Data imported

ExamOutput @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation Create Chart

| TransactionId | StartTime | UploadTime | AnswerPaperPDF | StudentNumber | ModuleCode |
|---------------|-----------------|-----------------|------------------------|---------------|------------|
| R111315725858 | 11:13:14.000000 | 11:19:40.000000 | ENG101962547769.pdf | 62547769 | ENG1019 |
| R111390868716 | 10:45:18.000000 | 11:24:29.000000 | RD JALIENG1015.pdf | 65663707 | ENG1015 |
| R111581975412 | 10:13:02.000000 | 10:22:59.000000 | IF NELL_24757324ELE2 | 24757324 | ELE2561 |
| R111590397683 | 10:08:06.000000 | 11:35:25.000000 | 78825746ICT2612.pdf | 78825746 | ICT2612 |
| R111769709002 | 11:25:28.000000 | 11:55:31.000000 | ICT1114_45163964QB F | 45163964 | ICT1114 |
| R111915326139 | 10:23:14.000000 | 11:54:39.000000 | MC NENZHELELE_409 | 40923162 | CHE4801 |
| R111935172450 | 11:15:47.000000 | 11:31:58.000000 | CB SEKALELIICT3611.p | 46435826 | ICT3611 |
| R112058843704 | 10:13:03.000000 | 11:09:02.000000 | 65611393ENG1014.pdf | 65611393 | ENG1014 |
| R112179128227 | 10:08:06.000000 | 10:40:35.000000 | ENG1011_15385552.pdf | 15385552 | ENG1011 |
| R112210028150 | 10:21:45.000000 | 10:32:36.000000 | MAT2612-30871391.pd | 30871391 | MAT2612 |
| R112241927121 | 10:25:48.000000 | 11:17:23.000000 | XT HENNINGENG1013. | 24359305 | ENG1013 |
| R112329792661 | 10:26:04.000000 | 11:29:48.000000 | ICT1115_50733690.pdf | 50733690 | ICT1115 |
| R112434914739 | 10:28:46.000000 | 11:05:26.000000 | ICT111361527913.pdf | 61527913 | ICT1113 |
| R112444321802 | 10:20:02.000000 | 11:44:04.000000 | MAT2612_70775285.pd | 70775285 | MAT2612 |
| R112520096249 | 10:42:07.000000 | 11:04:01.000000 | ENG1011_25654073YO | 25654073 | ENG1011 |
| R112628857962 | 10:11:14.000000 | 11:30:07.000000 | ENG1014_99564627UG | 99564627 | ENG1014 |
| R112700208679 | 10:49:11.000000 | 10:52:18.000000 | ICT1115-82739858.pdf | 82739858 | ICT1115 |
| R112701114400 | 11:11:39.000000 | 11:30:59.000000 | ELE2561_33652496.pdf | 33652496 | ELE2561 |
| R112748404096 | 11:08:26.000000 | 11:27:39.000000 | ENG1018_63430290_Ak | 63430290 | ENG1018 |
| R113031362459 | 11:05:54.000000 | 11:51:33.000000 | 82698561.pdf | 82698561 | CHE3704 |
| R113398732939 | 10:39:10.000000 | 11:35:19.000000 | CHE3704_42466274WX | 42466274 | CHE3704 |
| R113437173421 | 11:43:21.000000 | 11:43:40.000000 | ENG1019-25756470.pd | 25756470 | ENG1019 |
| R113506134093 | 10:20:04.000000 | 10:48:05.000000 | 11261613.pdf | 11261613 | CHE3701 |
| R113661950547 | 11:44:01.000000 | 11:58:50.000000 | Introduction to Databe | 39640890 | ICT1114 |
| R113825086428 | 10:40:39.000000 | 11:23:51.000000 | ELE2561_15622623_UR | 15622623 | ELE2561 |
| R113861341572 | 11:35:02.000000 | 11:36:47.000000 | ENG1015_19705379NX | 19705379 | ENG1015 |
| R113871047184 | 11:15:27.000000 | 11:54:08.000000 | ENG101982813230.pdf | 82813230 | ENG1019 |
| R113899660339 | 11:18:23.000000 | 11:37:52.000000 | 17351454ENG1016.pdf | 17351454 | ENG1016 |
| R113907641145 | 10:39:56.000000 | 11:17:50.000000 | WI MTAMBOICT3611.f | 89680334 | ICT3611 |
| R113958095721 | 10:31:51.000000 | 11:57:51.000000 | LI TSUPANEENG1016.p | 49930621 | ENG1016 |
| R114281071524 | 10:30:45.000000 | 11:18:19.000000 | End User Computing_ | 18738225 | ICT1119 |
| R114328565650 | 11:50:30.000000 | 11:50:30.000000 | ENG1012_74711513AC | 74711513 | ENG1012 |
| R114461756591 | 10:21:41.000000 | 10:31:48.000000 | 93030904ICT3722.pdf | 93030904 | ICT3722 |

SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[ExamOutput] ORDER BY _NAV_ORDER_F_ OFFSET 0 ROWS FETCH NE

Record 3 of 1000 in page 1

Exam Setup Data Imported

ExamSetup @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation Create Chart

| ModuleCode | ExamDate | ExamPaperPDF |
|------------|-----------------------------|------------------------|
| AST2652 | 2022-11-10 00:00:00.0000000 | AST2652_2022-11-10.pdf |
| CHE1504 | 2022-11-11 00:00:00.0000000 | CHE1504_2022-11-11.pdf |
| CHE181T | 2022-11-12 00:00:00.0000000 | CHE181T_2022-11-12.pdf |
| CHE2611 | 2022-11-13 00:00:00.0000000 | CHE2611_2022-11-13.pdf |
| CHE2613 | 2022-11-14 00:00:00.0000000 | CHE2613_2022-11-14.pdf |
| CHE3701 | 2022-11-15 00:00:00.0000000 | CHE3701_2022-11-15.pdf |
| CHE3703 | 2022-11-16 00:00:00.0000000 | CHE3703_2022-11-16.pdf |
| CHE3704 | 2022-11-17 00:00:00.0000000 | CHE3704_2022-11-17.pdf |
| CHE4801 | 2022-11-18 00:00:00.0000000 | CHE4801_2022-11-18.pdf |
| ELE2561 | 2022-11-19 00:00:00.0000000 | ELE2561_2022-11-19.pdf |
| ENG1011 | 2022-11-10 00:00:00.0000000 | ENG1011_2022-11-10.pdf |
| ENG1012 | 2022-11-11 00:00:00.0000000 | ENG1012_2022-11-11.pdf |
| ENG1013 | 2022-11-12 00:00:00.0000000 | ENG1013_2022-11-12.pdf |
| ENG1014 | 2022-11-13 00:00:00.0000000 | ENG1014_2022-11-13.pdf |
| ENG1015 | 2022-11-14 00:00:00.0000000 | ENG1015_2022-11-14.pdf |
| ENG1016 | 2022-11-15 00:00:00.0000000 | ENG1016_2022-11-15.pdf |
| ENG1017 | 2022-11-16 00:00:00.0000000 | ENG1017_2022-11-16.pdf |
| ENG1018 | 2022-11-20 00:00:00.0000000 | ENG1018_2022-11-20.pdf |
| ENG1019 | 2022-11-21 00:00:00.0000000 | ENG1019_2022-11-21.pdf |
| ICT1111 | 2022-11-10 00:00:00.0000000 | ICT1111_2022-11-10.pdf |
| ICT1112 | 2022-11-11 00:00:00.0000000 | ICT1112_2022-11-11.pdf |
| ICT1113 | 2022-11-12 00:00:00.0000000 | ICT1113_2022-11-12.pdf |
| ICT1114 | 2022-11-13 00:00:00.0000000 | ICT1114_2022-11-13.pdf |
| ICT1115 | 2022-11-14 00:00:00.0000000 | ICT1115_2022-11-14.pdf |
| ICT1116 | 2022-11-15 00:00:00.0000000 | ICT1116_2022-11-15.pdf |
| ICT1117 | 2022-11-16 00:00:00.0000000 | ICT1117_2022-11-16.pdf |
| ICT1118 | 2022-11-17 00:00:00.0000000 | ICT1118_2022-11-17.pdf |
| ICT1119 | 2022-11-18 00:00:00.0000000 | ICT1119_2022-11-18.pdf |

ModuleCode
Type
varchar(255)
Not null
Yes
Default Value
--
Comment
--

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SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[ExamSetup] ORDER BY _NAV_ORDER_F_C

Record 18 of 33 in page 1

ModuleInfo Data Imported

ModuleInfo @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation

| ModuleCode | Description |
|------------|-------------------------------------|
| AST2652 | Accounting Sciences II |
| CHE1504 | Introduction to Chemistry I |
| CHE181T | Chemistry I (Theory) |
| CHE2611 | Inorganic Chemistry II (Theory) |
| CHE2613 | Organic Chemistry II (Theory) |
| CHE3701 | Inorganic Chemistry III (Theory) |
| CHE3703 | Organic Chemistry III (Theory) |
| CHE3704 | Analytical Chemistry III |
| CHE4801 | Inorganic Chemistry IV |
| ELE2561 | Electrical Engineering II (Theory) |
| ENG1011 | Engineering Methods |
| ENG1012 | Engineering Design |
| ENG1013 | Engineering Smart systems |
| ENG1014 | Engineering Numerical analysis |
| ENG1015 | Design and Manufacture I |
| ENG1016 | Mechanical Design I |
| ENG1017 | Engineering Materials |
| ENG1018 | Engineering Science |
| ENG1019 | Engineering Practice I |
| ICT1111 | Introduction to Programming |
| ICT1112 | Introduction to GUI |
| ICT1113 | Introduction to Web Applications |
| ICT1114 | Introduction to Databases |
| ICT1115 | Introduction to Information Systems |
| ICT1116 | Introduction to Operating Systems |
| ICT1117 | Introduction to Formal Logic |
| ICT1118 | Language and Life Skills |
| ICT1119 | End User Computing |
| ICT1120 | Introduction to Applications |
| ICT2612 | Internet Programming II |
| ICT3611 | Internet Programming III |
| ICT3722 | Advanced Databases |
| MAT2612 | Mathematics II |

ModuleCode

Type
varchar(255)

Not null
Yes

Default Value
--

Comment
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1

SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[ModuleInfo] OF

Record 20 of 33 in page 1

Module Leader Data Imported

ModuleLeader @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export

| ModuleCode | StaffNumber |
|------------|-------------|
| ▶ AST2652 | 5017037 |
| ICT1113 | 5489641 |
| CHE1504 | 5509541 |
| ICT1114 | 7460174 |
| CHE181T | 5509541 |
| ICT1115 | 7460174 |
| ICT1116 | 4760241 |
| CHE2611 | 5133768 |
| ICT1117 | 4975413 |
| CHE2613 | 5133768 |
| CHE3701 | 7443352 |
| ICT1118 | 4866926 |
| ICT1119 | 2067863 |
| CHE3703 | 9530053 |
| ICT1120 | 8404212 |
| CHE3704 | 5133768 |
| CHE4801 | 5133768 |
| ICT2612 | 8404212 |
| ELE2561 | 7912653 |
| ICT3611 | 6939679 |
| ICT3722 | 4556445 |
| ENG1011 | 7912653 |
| MAT2612 | 1722194 |
| ENG1012 | 9025988 |
| ENG1013 | 3858852 |
| ENG1014 | 1550751 |
| ENG1015 | 4102703 |
| ENG1016 | 1389884 |
| ENG1017 | 4511492 |
| ENG1018 | 4511492 |
| ENG1019 | 1927785 |
| ICT1111 | 6249547 |
| ICT1112 | 4556445 |

ModuleCode

Type
varchar(255)

Not null
Yes

Default Value
--

Comment
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+ - ✓ ✕ ↺

SELECT *, 0 AS _NAV_ORDER_F_FR... Record 1 of 33 in page 1

Staff Members Data Imported

StaffInfo @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation

| StaffNumber | Email | Password |
|-------------|---------------------------|-------------------|
| 1389884 | d.nel4@unisa.ac.za | d.nel4@138 |
| 1550751 | f.pretorius@unisa.ac.za | f.pretorius@155 |
| 1722194 | pg.smith@unisa.ac.za | pg.smith@172 |
| 1927785 | l.busasu@unisa.ac.za | l.busasu@192 |
| 2067863 | d.zulu@unisa.ac.za | d.zulu@206 |
| 3858852 | pk.singh@unisa.ac.za | pk.singh@385 |
| 4102703 | fcd.mhalatsi@unisa.ac.za | fcd.mhalatsi@410 |
| 4511492 | tk.debeer@unisa.ac.za | tk.debeer@451 |
| 4556445 | m.mnatzi@unisa.ac.za | m.mnatzi@455 |
| 4760241 | od.bhohle@unisa.ac.za | od.bhohle@476 |
| 4866926 | vv.erasmus@unisa.ac.za | vv.erasmus@486 |
| 4975413 | md.naidoo@unisa.ac.za | md.naidoo@497 |
| 5017037 | jh.nel@unisa.ac.za | jh.nel@501 |
| 5133768 | lm.nkosi@unisa.ac.za | lm.nkosi@513 |
| 5489641 | mws.sharpwell@unisa.ac.za | mws.sharpwell@548 |
| 5509541 | b.baxter@unisa.ac.za | b.baxter@550 |
| 6249547 | pa.ramaposa@unisa.ac.za | pa.ramaposa@624 |
| 6939679 | ss.strydom@unisa.ac.za | ss.strydom@693 |
| 7443352 | nn.vanzyl@unisa.ac.za | nn.vanzyl@744 |
| 7460174 | mt.seopa@unisa.ac.za | mt.seopa@746 |
| 7912653 | sx.sithole@unisa.ac.za | sx.sithole@791 |

Name

Type
varchar(255)

Not null
No

Default Value
--

Comment
--

SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[StaffInfo] OR

Record 6 of 24 in page 1

Student Info Imported Data

StudentInfo @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation Create Chart

| StudentNumber | Name | Email | Password |
|---------------|-------------------|----------------------------|----------|
| 11141311 | OD MASEKO | 11141311@myLife.unisa.ac.z | 111@OD |
| 11153623 | KY MAKHAFOLA | 11153623@myLife.unisa.ac.z | 111@KY |
| 11162384 | QP KALENGA | 11162384@myLife.unisa.ac.z | 111@QP |
| 11207520 | UU MAPHUTHA | 11207520@myLife.unisa.ac.z | 112@UU |
| 11260693 | EU UBISI | 11260693@myLife.unisa.ac.z | 112@EU |
| 11261613 | PT NGQENGELELE | 11261613@myLife.unisa.ac.z | 112@PT |
| 11276374 | QD MACHETE | 11276374@myLife.unisa.ac.z | 112@QD |
| 11286271 | TN MMOLOTSI | 11286271@myLife.unisa.ac.z | 112@TN |
| 11296841 | EX MPHABLELE | 11296841@myLife.unisa.ac.z | 112@EX |
| 11348843 | UX SEWNARAIN | 348843@myLife.unisa.ac.za | 113@UX |
| 11350641 | CK GONDO | 11350641@myLife.unisa.ac.z | 113@CK |
| 11357287 | CV MANDIPIRA | 11357287@myLife.unisa.ac.z | 113@CV |
| 11372737 | XH THWALA | 11372737@myLife.unisa.ac.z | 113@XH |
| 11384884 | RQ SIBINDLANA | 11384884@myLife.unisa.ac.z | 113@RQ |
| 11447994 | VJ MHLONGO | 11447994@myLife.unisa.ac.z | 114@VJ |
| 11477936 | SR HANKEY | 11477936@myLife.unisa.ac.z | 114@SR |
| 11483332 | XO CHARUMBIRA | 11483332@myLife.unisa.ac.z | 114@XO |
| 11490131 | W MOKOENA | 11490131@myLife.unisa.ac.z | 114@W |
| 11492193 | EP GILL | 11492193@myLife.unisa.ac.z | 114@EP |
| 11523952 | UD CHINYANGA | 11523952@myLife.unisa.ac.z | 115@UD |
| 11533815 | U MANGOUA MENDIYA | 11533815@myLife.unisa.ac.z | 115@U |
| 11536884 | PB MTJWARA | 11536884@myLife.unisa.ac.z | 115@PB |
| 11566745 | VN MAKHUDU | 11566745@myLife.unisa.ac.z | 115@VN |
| 11582146 | KM MAPHWANYA | 11582146@myLife.unisa.ac.z | 115@KM |
| 11627788 | JD WILLIAMS | 11627788@myLife.unisa.ac.z | 116@JD |
| 11628404 | OA MAPETA | 11628404@myLife.unisa.ac.z | 116@OA |
| 11634229 | Z NKHUMELENI | 11634229@myLife.unisa.ac.z | 116@Z |
| 11641994 | FK MPHABLELE | 11641994@myLife.unisa.ac.z | 116@FK |
| 11642685 | KW VAN DER MERWE | 11642685@myLife.unisa.ac.z | 116@KW |
| 11648513 | ZS THUPAYAKGOSI | 11648513@myLife.unisa.ac.z | 116@ZS |
| 11676666 | SB STEVENSON | 11676666@myLife.unisa.ac.z | 116@SB |
| 11702638 | UP NAMWIHA | 11702638@myLife.unisa.ac.z | 117@UP |

Email

Type
varchar(255)

Not null
No

Default Value
--

Comment
--

SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[StudentInfo] ORDER BY _NAV_ORDER_F_ OFFSET 0 ROWS FETCH NEXT 10 ROWS ONLY

Record 10 of 1000 in page 1

Student Module Data Imported

StudentModule @UnisaExamPortal.dbo (Local) - Table

File Edit View Window Help

Begin Transaction Text Filter Sort Import Export Data Generation Create Chart

| StudentNumber | ModuleCode |
|---------------|------------|
| 11141311 | AST2652 |
| 11141311 | ICT1113 |
| 11153623 | CHE1504 |
| 11153623 | ICT1114 |
| 11162384 | CHE181T |
| 11162384 | ICT1115 |
| 11207520 | CHE2611 |
| 11207520 | ICT1116 |
| 11260693 | CHE2613 |
| 11260693 | ICT1117 |
| 11261613 | CHE3701 |
| 11261613 | ICT1118 |
| 11276374 | CHE3703 |
| 11276374 | ICT1119 |
| 11286271 | CHE3704 |
| 11286271 | ICT1120 |
| 11296841 | CHE4801 |
| 11296841 | ICT2612 |
| 11348843 | ELE2561 |
| 11348843 | ICT3611 |
| 11350641 | ENG1011 |
| 11350641 | ICT3722 |
| 11357287 | ENG1012 |
| 11357287 | MAT2612 |
| 11372737 | AST2652 |
| 11372737 | ENG1013 |
| 11384884 | CHE1504 |

StudentNumber

Type
int

Not null
Yes

Default Value
--

Comment
--

SELECT *, 0 AS _NAV_ORDER_F_ FROM [dbo].[StudentModule] ORDER BY _NAV_Of

Record 14 of 1000 in page 1

Foreign Key Setup Sample

* ExamOutput @UnisaExamPortal.dbo (Local) - Table

File Edit Window Help

Save Add Foreign Key Delete Foreign Key

Fields Indexes Foreign Keys Uniques Checks Triggers Options Storage Comment SQL Preview

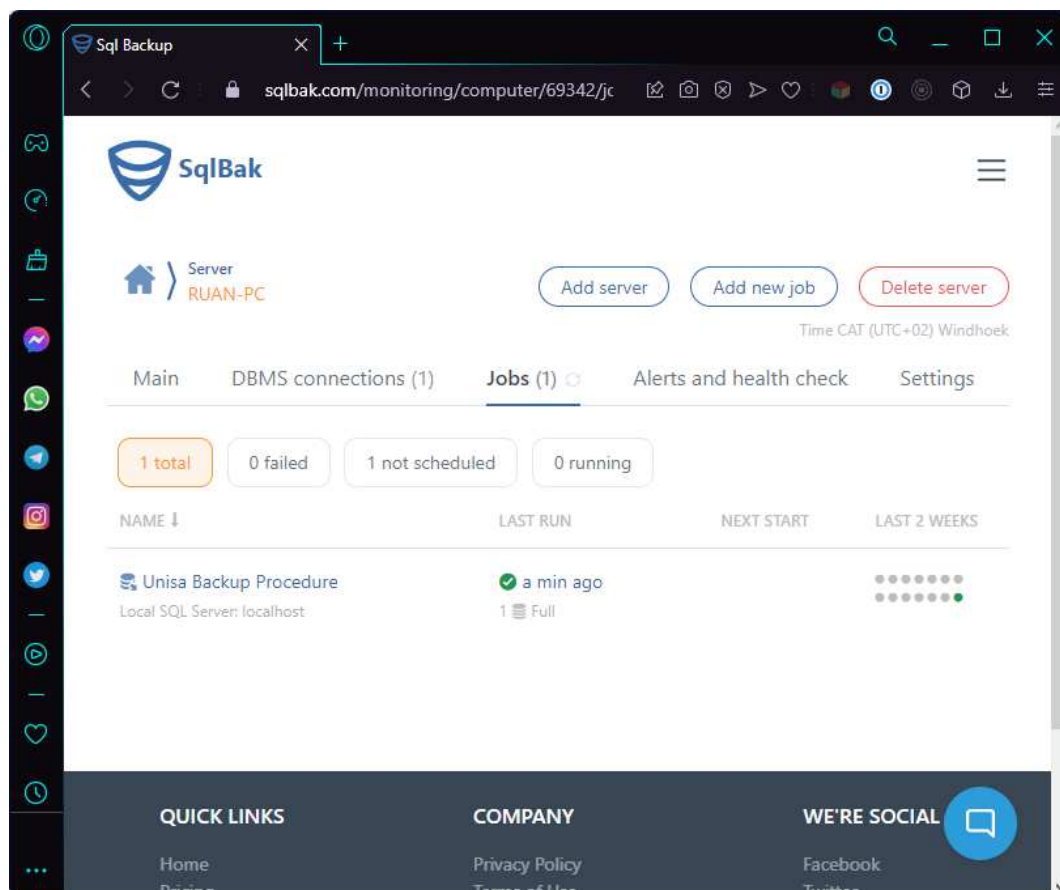
| Name | Fields | Referenced Database | Referenced Table | Referenced Fields | On Delete | On Update | Enable | N |
|---------------|---------------------------|---------------------|------------------|---------------------------|-----------|-----------|-------------------------------------|---|
| FK_ExamOutput | StudentNumber, ModuleCode | dbo | StudentModule | StudentNumber, ModuleCode | NO ACTION | NO ACTION | <input checked="" type="checkbox"/> | N |

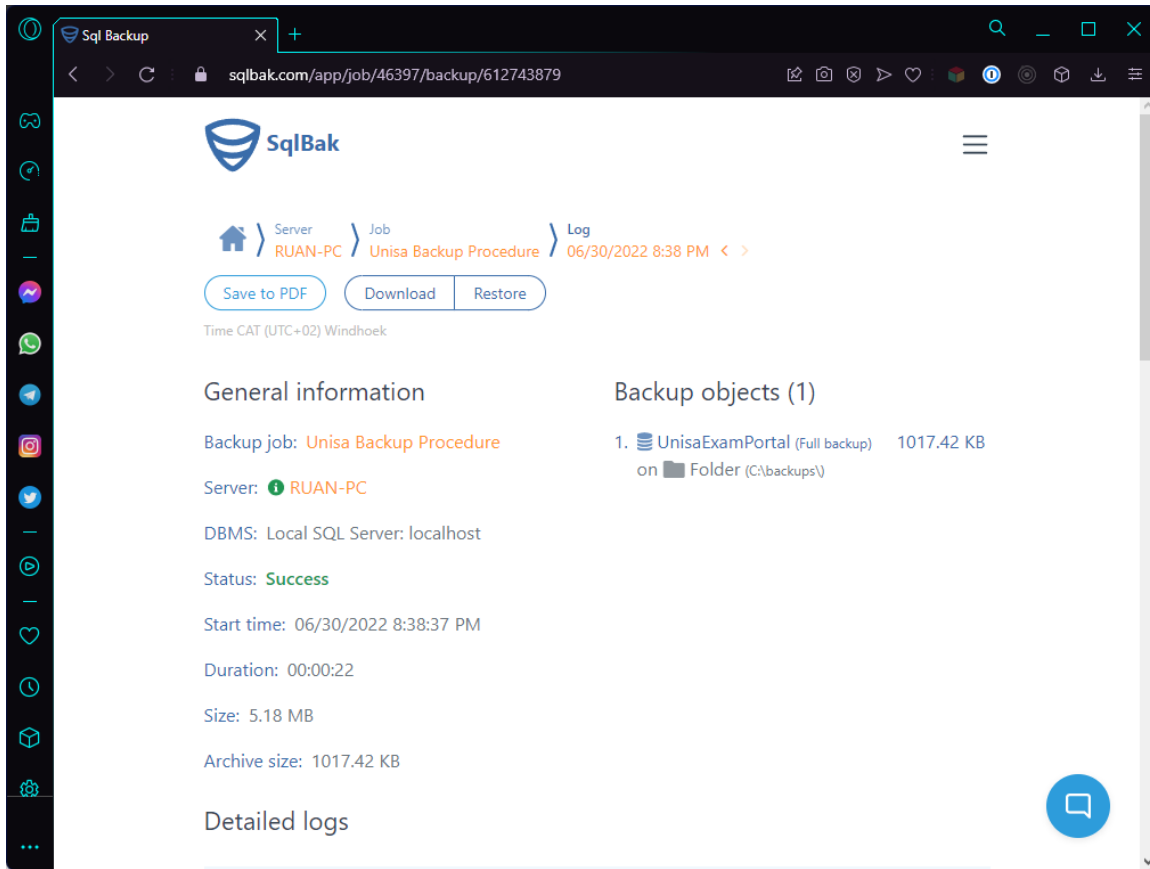
Number of Fields: 6 Number of Foreign Keys: 1

Section B = Backup and Recovery for the Database and Programming code [10]**Database (5)**

I am using third-party software, SqlBak, to perform my main backup processing for my database. If recovery is needed, I will select my latest backup created and will be restoring the database either through Microsoft Management Studio, as I am using Sql Server Express, or I can use Navicat, my main Database Admin Tool, to perform the restoration.

I will be storing the database on my dropbox and my local machine which consists of multiple drives.

SqlBak**Running and Storing a Backup**



Programming code & Portfolio (assignments) (20)

For backup and recovery of my code, I will be using BitBucket which is a repository for code that uses the same architecture as GitHub. I will also be keeping my files in my dropbox which has a 30-day recovery plan, including my portfolio along with my code.

Assignment 1

Section A [4]

Programming Languages (2)

I will be using C# for both back-end and front-end and HTML inside a Blazor framework as the markup for the front-end.

Database (2)

I will be using Microsoft SQL Server as my database and I will be using the Express (free) Edition.

Section B [10]

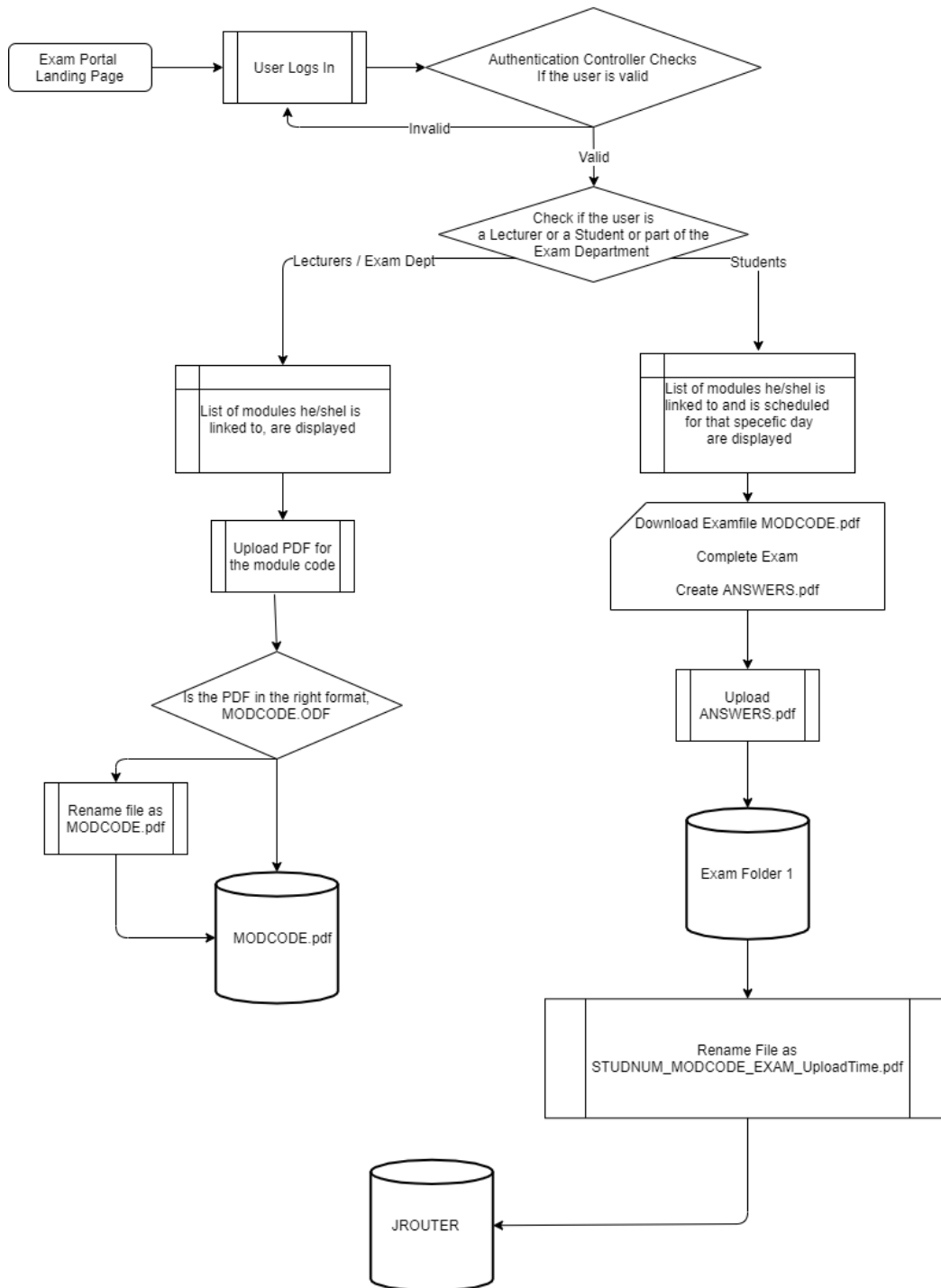
Cleaning the data

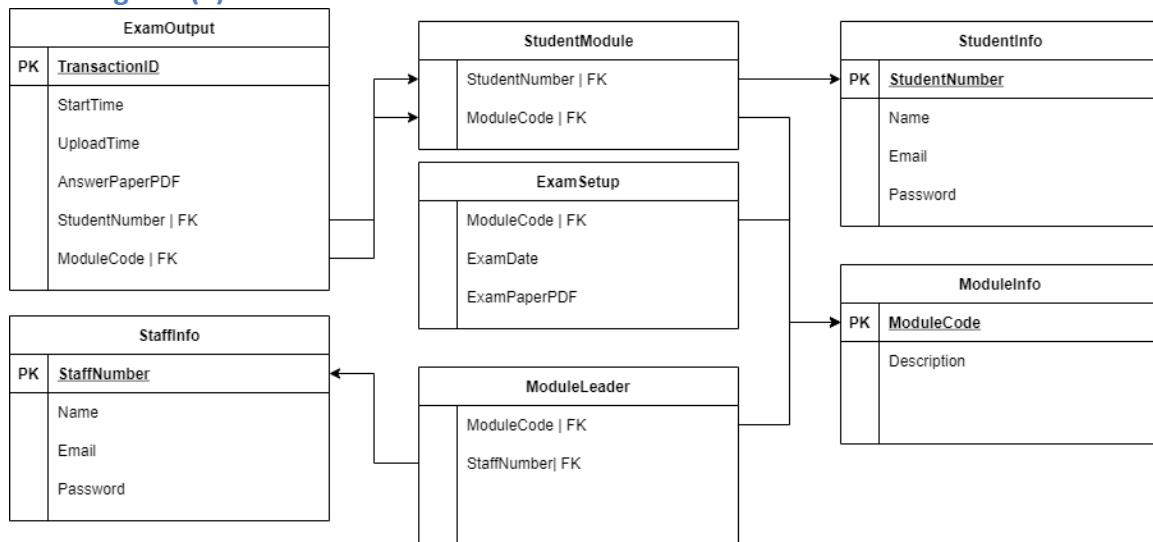
Attached to PDF

Section C [10]

Activity Diagram (7)

Exam Portal Activity Diagram



ERD Diagram (3)**Section Backup and Recovery for the Database and Programming code [6]****Backup and Recovery Software for the Database (3)**

I will be using SqlBak as my main Database backup and recovery (<https://sqlbak.com>)

As a backup if SqlBak gives me issues, I will be using Redstor (<https://www.redstor.com>)

Backup and Recovery process for the Programming code and your Portfolio assignments) (3)

For backup and recovery of my code, I will be using BitBucket which is a repository for code that uses the same architecture as GitHub. I will also be keeping my files in my dropbox which has a 30-day recovery plan, including my portfolio along with my code.