THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

036/2 INFORMATION AND COMPUTER STUDIES 2

(ACTUAL PRACTICAL)

(For Both School and Private Candidates)

Duration: 3 Hours **SOLUTIONS** **Year: 2025**

Instructions

1. This paper consists of three (3) questions.
2. Answer any two (2) questions. Each question carries 25 marks
3. Save your work on the desktop using the folder named by your examination number
4. Communication devices and any unauthorised materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s)

1. Mr. Majao manages his Shoes Shop records using Microsoft Access database. The database stores customer records including contacts and purchases. He uses the database as the marketing strategy for facilitating him in awarding his royal customers. The customer is awarded a free pair of shoes if he buys 10 pairs. Study carefully the following tables which are included in the database and answer the questions that follow:

Customers

CustID	FirstName	Surname	Phone#
1	Jona	Muliye	0713345610
2	Mary	Kolida	0674234012
3	Kilo	Kilosa	0782919293
4	Juju	Moses	0761839099
5	Marcelina	Mosi	0651828280
6	Moneylisa	Pesa	0621345334
7	Joy	Majiji	0765080911

Purchases

PurchaseID	CustID	DatePurchase	Shoe_Category	Num_Shoes	Amount
1	1	3/8/2023	ladies	1	35,000.00
2	1	4/6/2023	ladies	3	30,000.00
3	1	5/5/2023	kids	4	60,000.00
4	1	4/7/2023	Men	2	48,000.00
5	2	8/2/2023	ladies	2	30,000.00
6	2	5/23/2023	kids	1	15,000.00
7	3	6/23/2023	men	1	39,000.00
8	3	6/18/2023	kids	2	28,000.00
9	4	3/26/2023	men	2	56,000.00
10	5	4/6/2023	kids	3	33,000.00
11	5	5/20/2023	ladies	2	40,000.00
12	6	4/23/2016	men	1	35,000.00
13	7	5/23/2023	ladies	1	18,000.00
14	7	5/27/2023	ladies, men	4	98,000.00
15	7	6/20/2023	kids, ladies, men	3	85,000.00
16	7	6/28/2023	kids	2	30,000.00

(a) Create the database for Mr. Majao Shoes Shop and save it as "MajaoShoesDB".

(b) Create the given Customers and Purchases tables within MajaoShoesDB.

(c) Use Form Wizard to create a form that enables Mr. Majao to enter customers and purchases data using one form. Use the form created to enter the sample data provided. Save the form as "Customers Purchasesform".

(d) Use Customers and Purchases tables to create a one-to-many relationship between the two tables.

(e) Add mathematical formula to the form created in 1 (c) that enables Majao to view the total amount of money that each customer spent and the number of pairs bought.

(f) Create a query that enables to check customers' purchase details. The details include customer ID, first name, surname, Phone number, date purchased, pairs of shoes and amount paid for each day. Save the query as "customerspurchases".

(g) Create a query which enables to view customer's first name, surname, dates and shoes category for customers who bought ladies or kids shoes. Save the query as "bought ladies or kids shoes".

(h) Create a parameter query that enables to search for any customer using customer's surname and display his purchase records. Save the query as "search a customer by surname".

(i) Create a report that search and prints customers' purchase records by their surnames. Save the report as "Report of Customers by surname".

(j) Create a report that will enable Majao to print records of all customers who bought men shoes. Save the report as "Men shoes only report".

Database Structure and Relationships

Tables

1. **Customers Table**

- Primary Key: CustID
- Fields: FirstName, Surname, Phone#

2. **Purchases Table**

- Primary Key: PurchaseID
- Foreign Key: CustID (links to Customers)
- Fields: DatePurchase, Shoe_Category, Num_Shoes, Amount

Relationship:

- **One-to-Many**: One customer can have multiple purchases.
- **CustID** in Customers → CustID in Purchases

Form:

- **Customers Purchasesform** combines Customers and Purchases tables.
- Allows input for both customer details and purchases on a single form.
- Includes **mathematical controls** to calculate total amount spent and total shoes purchased.

Queries:

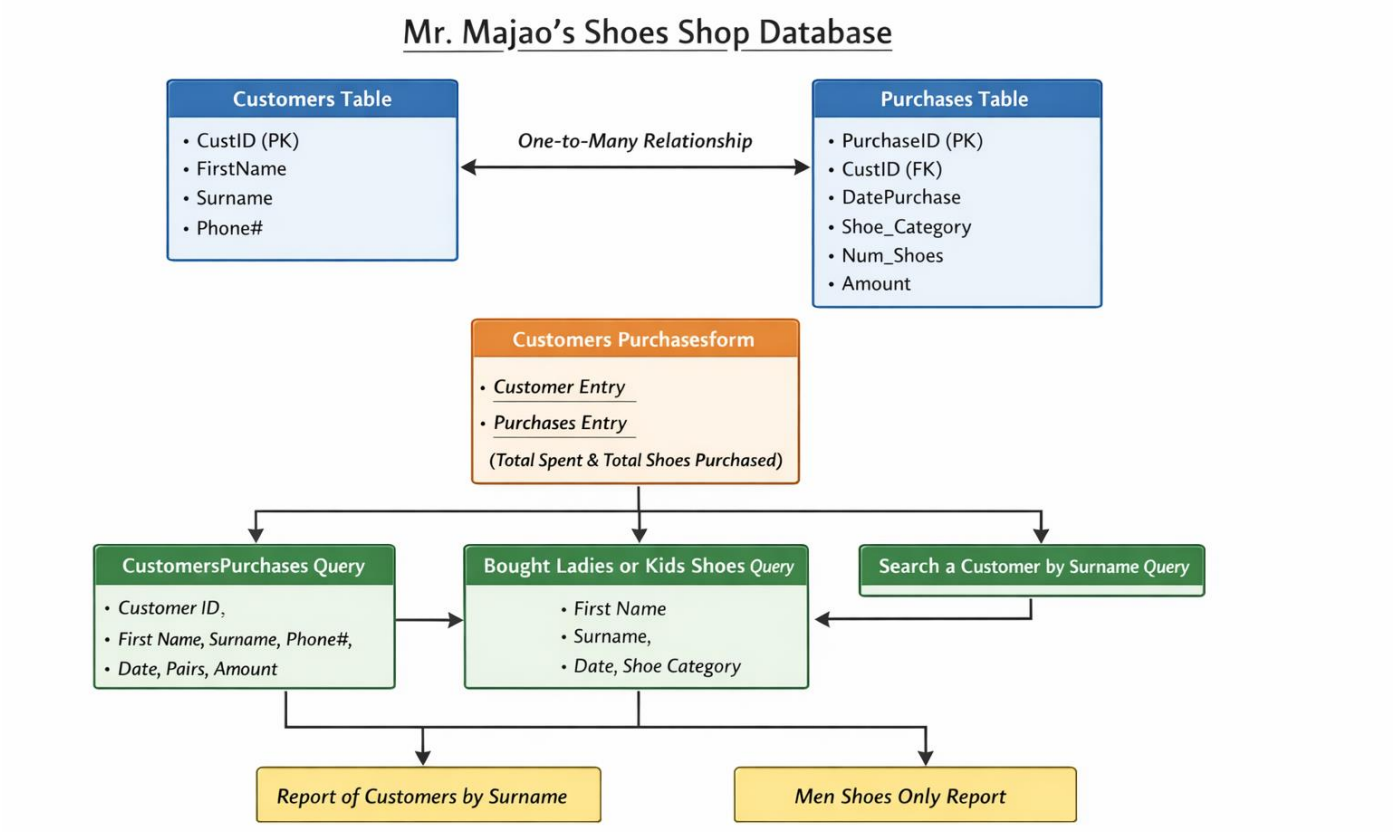
- **customerspurchases** → displays all purchase details with customer information.

- **bought ladies or kids shoes** → filters purchases for ladies or kids shoes.
- **search a customer by surname** → parameter query to search a specific customer.

Reports:

- **Report of Customers by surname** → prints purchases grouped by surname.
- **Men shoes only report** → prints purchases where Shoe_Category contains "Men".

Diagram Representation



Explanation of Diagram:

- **Customers → Purchases**: Shows the one-to-many relationship.
- **Queries**: Pull data from both tables to filter or summarize information.
- **Reports**: Use the queries as sources to generate formatted, printable output.

2. Umoja Technical College offers different technical courses in its campuses allocated at different areas in Tanzania. To make teachers and students aware of all monthly-scheduled events, the principal of the college asked you to prepare online calendar to the college website.

(a) Create the following Interface by using basic HTML codes.

Hint: Use table with border 0, height 300 and width 300 to create the Interface and to arrange the monthly buttons.

Page descriptions

- The heading "UMOJA CALENDAR" should be colored in red with the font type "Gabriola" and text size 20.
- The size of the horizontal line should be 300.

```
<!DOCTYPE html>
<html>
<head>
    <title>Umoja Calendar</title>
</head>
<body>
    <h1 style="color: red; font-family: Gabriola; font-size: 20px;">UMOJA CALENDAR</h1>
    <hr width="300" align="left">
    <table border="0" height="300" width="300">
```

```
<tr>
    <td><button>January</button></td>
    <td><button>February</button></td>
    <td><button>March</button></td>
</tr>
<tr>
    <td><button>April</button></td>
    <td><a href="may.html"><button>May</button></a></td>
    <td><button>June</button></td>
</tr>
<tr>
    <td><button>July</button></td>
    <td><button>August</button></td>
    <td><button>September</button></td>
</tr>
<tr>
    <td><button>October</button></td>
    <td><button>November</button></td>
    <td><button>December</button></td>
```

```
        </tr>
    </table>
</body>
</html>
```

(b) Activate the button "May" in the interface created in 2 (a) so that when the user clicks, it displays the following page.

HINT:

- Use Microsoft word to create the circle and rectangle shapes to the dates "1" and "4" respectively.
- Use the borderless table to arrange the dates.

Page descriptions

- The heading "May 2025" should be in level 2.
- The size of the horizontal line after the heading should be 300 and aligned at centre.
- The background and line colour of the circle shape should be orange, accent = 2, lighter = 80% and the line colour should be blue.
- The line colour of the rectangle shape in the 4th date should be blue.
- The height and width of the table required to arrange the dates should be 350 for each.

(c) Develop the HTML codes that activate the 1st date in the circle shape created in 2(b) such that the following page will be displayed when the user clicks it.

1st May 2025 Worker's day

Page descriptions

- The font type, colour and size of the text "Worker's day" should be "Lucida handwriting", "white" and 13 respectively and the background color should be green.

(d) Construct HTML codes that display the "current date" when the user hangs the mouse on the rectangle button labeled with number "4" in the interface created in 2 (b).

```
<!DOCTYPE html>
<html>
<head>
  <title>May 2025</title>
  <style>
    .circle {
      background-color: #fbe5d6; /* Orange Accent 2 Lighter 80% */
      border: 2px solid blue;
      border-radius: 50%;
      padding: 5px;
      display: inline-block;
    }
    .rect {
      border: 2px solid blue;
```

```
            padding: 5px;
            display: inline-block;
        }
    </style>
</head>
<body>
    <h2 align="center">May 2025</h2>
    <hr width="300" align="center">
    <table border="0" height="350" width="350" align="center">

<tr><th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thur</th><th>Fri</th><th>Sat</th></tr>
        <tr>
            <td></td><td></td><td></td><td></td>
            <td><a href="workersday.html" class="circle">1</a></td>
            <td>2</td><td>3</td>
        </tr>
        <tr>
            <td><span class="rect" title="04/02/2026">4</span></td>
            <td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td>
```

```
        </tr>

        </table>

</body>

</html>
```