Sample exam 1

*Michael O’Brien runs a retail outlet in Nenagh, Co. Tipperary. He specialises in a broad range of adhesive and sealing compounds. Recently he has started to record details of the various products that he stocks. Michael wishes to set up a database to record these details and to enable him to retrieve information easily from the data stored.*

1. Copy the database called **Stock Control** from your class folder and paste it in your own folder. Open the database **Stock Control.**
2. Open the table called **Current Stock** and carry out the following tasks:

* Set the field properties for each of the fields, as appropriate. Before you do this, you will complete the **Data Structure Form** on page 4 of this paper. The data type and field properties you select for your table must correspond to those in the **Data Structure Form**.
* Assign a Primary Key to the **Rec No** field.
* Set up an index on the **Agen**t field.
* Set up a validation rule that ensures that values entered in the **Life (wks)** field are restricted to the range 4 to 104 inclusive. If the data entry operator attempts to enter a number outside this range, the error message “Life (weeks) must be in the range 4 to 104 inclusive” should be displayed.
* Save, print and close the table.

1. Design and create a form to allow the data entry. The format of the form should be as follows:

* Insert the title **Stock Registration** centrally on the form in Rockwell size 24.
* Insert the graphic **roof** **coatings. jpg** from your folder into the form header.
* Display two fields on each line (except the last line).
* Place a label or title beside each field.
* Edit the **Rec No** label so that it reads **Record Number**
* Adjust the width of text box controls to accommodate the data.
* Set the alignment of the **Rec No, Qty (kg), Price and Life (wks)** text box controls to centre.
* Create a combo box for the **Product** field. Each product should appear once in the combo box in alphabetical order
* Create a list box for the **Location** field. Each location should appear once in the list box in alphabetical order.
* Line up the label and text box controls both horizontally and vertically
* Set up the tab order of the form using the order in the following table

|  |  |
| --- | --- |
|  | **Field Name** |
| 1 | Rec No |
| 2 | Product |
| 3 | Agent |
| 4 | Qty (kg) |
| 5 | Price |
| 6 | Location |
| 7 | Life (wks) |

1. Save the Form as ***Stock Registration*** *and p*rint the ***Stock Registration***Form
2. Import the text file called **agents.txt** from your folder into a new table in the current database. Do not assign a **Primary** **Key**. Call the new table **Agents Details**.
3. Create a relationship between the two tables.
4. Create a query based on the **Current Stock** table to show all records for products where the agent is ***Doyle Bros*.** Sort the Query in ascending order of ***Price****.* Save the Query as ***Doyle Bros*** and print.
5. Create a query based on the **Current Stock** table to show all records for***Adhesive***products. Use a wildcard to select the required records. Sort the Query in ascending order of ***Location****.*  Save the Query as ***Adhesive Products*** and print.
6. Create a query based on the **Current Stock** table to show all records that are located in the *Stores* and where the *Qty* is less than *12*. Sort the Query in descending order of ***Qty (kg).*** Save the Query as ***Stock below 12 in Stores*** and print.
7. Create a query based on the **Current Stock** table to show all records for products where the ***Agent***is Geo Ryan, where the ***Price***is between €25 and €90 inclusive and the ***Life (wks)***is greater than 12. Sort the Query in ascending order of ***Location****.* Save the Query as ***Geo Ryan*** and print.
8. Add a new field to the ***Current Stock***Table as follows:

* Field name – *Toxic.*
* Data type – *Yes/No*.

Add the details of the ***Toxic***field to the database structure form on page 4.

1. Add the *Toxic* field to the ***Stock Registration***Form and enter data as follows:

* All the Adhesive products are toxic.
* All other products are not toxic.

1. Delete the record with *Rec No* 7247.
2. Edit the ***Product***combo box, then input the records displayed in the table below using the ***Stock Registration***Form. Print the updated table.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Rec No** | **Product** | **Agent** | **Qty (Kg)** | **Price** | **Location** | **Life (wks)** | **Toxic** |
| 8324 | Quick Adhesive | Doyle Bros | 0.5 | 6.40 | Shop | 11 | Yes |
| 8325 | Bonding Cement | JJ Williams | 3.5 | 18.60 | Stores | 9 | No |

1. Generate a Report from the ***Current Stock***Table including all fields. Sort the Report with the ***Product***field in ascending order (primary sort) and the ***Life (wks)***field in descending order (secondary sort). The layout is *landscape* orientation. The Report title is ***Current Stock List*.** Ensure that data is aligned under each heading and that each text box and label are wide enough to display all data. Print the report.
2. Generate a Report from the ***Current Stock***Table, to include the following:

* Show all fields except ***Agent***and ***Life (wks).***
* Sort the Report in descending order on the ***Price***field.
* Display the title, ***List of Products***, centrally over the Report.
* Display the appropriate field heading centrally over each column of data.
* Use a function to display the average for the ***Qty (kg)***field at the bottom of the Report.
* Insert a label with the text ***Average Quantity***beside the function. Format the average quantity to 1 decimal place.

1. Save this Report as ***List of Products***. Print the Report (in *portrait* orientation).
2. Produce a set of labels for all products except for roof sealer.

The labels should have the following format:

* Layout as shown below.
* Have more than one label across the page.
* Sorted in ascending order of ***Product****.*
* ***Agent***field in bold print.



1. Save these labels as ***Stock Control Labels.***
2. Print the ***Stock Control Labels***
3. Generate a report from the ***Current Stock***Table, to include the following:

* Show all fields.
* Group the report by the ***Location***field.
* Sort the records in each ***Location***in descending order of ***Price****.*
* Display the title, ***Products by Location*,** centrally over the Report.
* Display the appropriate field heading centrally over each column of data.
* Use a function to display the total value of products in each location. Display the result of the function in euro format with 2 decimal places. Insert a label with the text *Stock Value* beside the function.
* Calculate the average ***Life (wks)***for products in each location, using an appropriate function. Display the result of the function in Fixed format with 1 decimal place. Insert a label with the text ***Average Life in weeks***beside the function. Position this function below the stock value function.
* Use a function to display the total quantity of stock for all products displayed in the Report. Display the result of the function in Fixed format with 1 decimal place. Insert a label with the text ***Current Stock Level***beside the function.
* Save this report as ***Products by Location*.** Print the report (in *landscape* orientation)

Database Structure Form (to be filled)

|  |  |  |
| --- | --- | --- |
| ***Field Name*** | ***Data Type*** | ***Field Properties*** |
| **Rec no** | number | Long integer |
| **product** | Short text | 60 |
| **agent** | Short text | 60 |
| **Quantity(kg)** | number | double |
| **Price** | currency | euro |
| **location** | Short text | 60 |
| **Life(wks)** | number | Long integer |
| **toxic** | Yes/no | Yes/no |