**ACCESS – WORKBOOK THREE**

This workbook assumes that you have previous experience of using Microsoft Access and can create Tables, Queries and Reports.

Exercise 1

*This database is designed to store information on vegetable seeds for a local garden centre. Two tables are to be created*

Open Access

* New database

 Filename: **Crop database**

*Create Table 1 and save it as* ***Crop Varieties***

* Set up following fields

|  |  |  |
| --- | --- | --- |
| **Field Sizes** | **Data Type** | **Field Sizes** |

|  |  |  |
| --- | --- | --- |
| **Variety** | Text | **20** |
| **Name** | **Text** | **20** |
| **Code No** | **Text** | **4** |
| **Crop Time** | **Text** | **10** |

* Set primary key for Code No field
* Delete the ID field
* Close table

*Create New Table 2 within the same database. Save it as* ***Crop Prices***

|  |  |  |
| --- | --- | --- |
| **Field Sizes** | **Data Type** | **Field Sizes** |

|  |  |  |
| --- | --- | --- |
| **Code No** | **Text** | **4** |
| **Page Ref** | **Number** | **Long Integer** |
| Amount Sold | **Number** | **Long Integer** |
| **Price** | **Currency**  | **2 places decimals** |

* Set Primary key for Code No and delete the ID column
* Save and close

*Input Data*

*Table 1 (Crop Varieties)*

* Open Crop Varieties

(for the tables you can import them from note pad. Go to the External Data tab and click on text file. The first table is saved as cropv and the second as cropp. Import them into your database to save time)

|  |  |  |  |
| --- | --- | --- | --- |
| **Variety** | **Name** | **code\_no** | **Harvest Time** |
| Dwarf French Beans | Annabel | 3088 | Summer |
| Dwarf French Beans | The Prince | 3097 | Summer |
| Dwarf French Beans | Masterpiece | 3092 | Summer |
| Cabbage | Spring Hero | 3333 | Spring |
| Cabbage | Cosair | 3357 | Winter |
| Carrots | Cardinal | 3389 | Spring |
| Carrots | Rocket | 3393 | Spring |
| Carrots | Campestar | 3390 | Autumn |
| Lettuce | Tom Thumb | 3681 | Summer |
| Lettuce | Lakeland | 3677 | Summer |
| Lettuce | Valdor | 3706 | Winter |
| Peas | Meteor | 3009 | Autumn |
| Peas | Little Marvel | 3007 | Spring |
| Peas | Onward | 3062 | Summer |

* Sort into Code\_no order
* Move Plant Code column to beginning
* Save and print a copy
* Close table

*Table 2- Crop Prices*

* Open Crop Prices and input data

|  |  |  |  |
| --- | --- | --- | --- |
| **Code\_no** | **Brochure Ref** | **Amount Sold** | **Price** |
| 3088 | 62 | 100 | 0.85 |
| 3097 | 63 | 250 | 1.15 |
| 3092 | 64 | 200 | 1.02 |
| 3333 | 65 | 160 | 1.22 |
| 3357 | 68 | 130 | 1.29 |
| 3389 | 69 | 255 | 1.39 |
| 3393 | 70 | 300 | 0.98 |
| 3390 | 71 | 425 | 0.75 |
| 3681 | 72 | 120 | 0.52 |
| 3677 | 72 | 80 | 0.79 |
| 3706 | 74 | 360 | 0.66 |
| 3009 | 77 | 250 | 0.92 |
| 3007 | 77 | 300 | 1.02 |
| 3062 | 79 | 120 | 0.89 |

* Sort into Code\_no order
* Save and print a copy
* Close table

*Relationships*

*Create a relationship between the 2 tables*

*Click on Database Tools and choose Relationships. Add both tables as seen below*

**

*When both tables have been selected, close the window. Click in Code No from the first table and drag into Code No in the second table. This will bring up the following window.*

**

*Click Create and a line will now join the 2 tables. There is now a relationship between the 2 tables.*

**

*Queries (Joined tables)*

Create the following queries based on the 2 joined tables. The tables will be joined via the CodeNo field (primary key)

You can only join two tables if they have the same field in both of the tables. This saves you having to create two separate queries and also brings all your data together into one.

*Proceed as follows to add calculated fields in query*

* Perform New Query as usual to find all Spring Varieties; add both tables to the grid

 Fields to show in this order:

CropTime,

Code Number, (from either table)

Name,

PageRef,

Price

Criteria: Crop Time**: Spring**

* Run the query to view the results.
* Change orientation to landscape -
Print
* Print Preview
Landscape orientation
OK
* Save Query
* Preview and print

Use the same query in Design View and change criteria for the following query.

* Find all Summer Varieties

* File Menu, Save As - **Summer Varieties**

Preview and print

Close query.

*Report*

The following steps will enable you to produce a Report, based on the 2 tables, using the Report Wizard.

A Query must be created first so that the required fields from the 2 tables will be available.

* Create a new query in design view
* Add both tables to the grid

All fields required from Crop Varieties table

* Double click the grey heading ‘Crop Varieties’
All fields are selected
Drag down to grid
* From Crop Prices list of fields
Page Ref,
* Amount\_Sold
* Price
* Run Query
* Save Query **Complete List**
* Close Query – back to database window

## Create Simple Report

Create a simple report via the Report Wizard. Base it on the query “Complete List” and include all the fields.

Choose to group the report on **Variety** and sort it on the field **Name.** In the summary details sum the Amount Sold field.

Choose to lay the report in landscape, and select any style that you prefer.

Name the report: **Crop Report**
Finish

## View and Print Report

* Print a copy of the report and then close it.
* Close database file

Forms

A form is a database object that you can use to enter, edit, or display data from a table or a query. You can use forms to control access to data, such as which fields or rows of data are displayed.

Create a form for the Crop Varieties table using the wizard

Click on the Create tab in the Access window

Click on More Forms, Form wizard



Choose the crop variety table, use all of the fields, and choose Columnar Style

Choose any style for the form, and enter the name **frmcropvarieties**

Use the forms to view the records in the table

On the toolbar at the bottom, click on the New Record icon

Last Record

New Record



Back to first record

Next record

Add a new record

Lettuce Ice Berg 3100 Summer

Click on the crop varieties table to see the record has been entered (you may need to close the form and table and reopen to see the new record)

Using the same method as before, create a form for the Crop prices table and enter the following new record

3100 78 350 £0.89

**Exercise 2**

*This exercise represents an extract from a Travel Agency database and the creation of 2 related tables*

* Create a new database file and name it **Travel Database**

Database Window appears

* Design a new table as follows, save it as Tour Details

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | Data Type | Description | **Field Size/Format** |
| Tour No | AutoNumber | Number in brochure | Long Integer |
| Resort | Text | Name of Resort | 20 |
| Hotel | Text | Name of Hotel | 15 |
| Days | Number | Number of days tour lasts | Long Integer |
| Prices From | Currency | Minimum charges | 2 Decimal Places |

* Set primary key for TourNo field

Delete the ID field

* Save table design - click Save button

 OK

**ENTER DATA**

* Click View button to change to datasheet view

 Enter the following data - use <TAB> after each entry

 ***The Tour No is automatically entered each time*** *- just <TAB> to next field*

***This data is also available in the excel spreadsheet Tour Details***

*If currency appears in dollars seek assistance*

|  |  |  |  |
| --- | --- | --- | --- |
| **Resort** | **Hotel** | **Days** | **Prices** |

|  |  |  |  |
| --- | --- | --- | --- |
| Hunstanton | Royal | 8 | 103 |
| Cromer | Viking | 8 | 109 |
| Sheringham | Lyton Court | 8 | 95 |
| Hunstanton | Devon Towers | 8 | 97 |
| Gt Yarmouth | Southdown | 9 | 127 |
| Cromer | Midland | 8 | 105 |
| Hunstanton | Manchester | 7 | 111 |
| Cromer | Majestic | 7 | 127 |

*Change widths*

* Click 1st column selector to select column

 Hold down <SHIFT> and click final column selector

 Double click right border of *any* column selector to adjust widths to best fit

*Save Structure*

* Save
* Print copy of the datasheet

**Manipulation of data**

*Sort Resorts into alphabetical order*

* Click anywhere in Resort column

 Click Ascending Sort button

* Print Datasheet

*Find a Record quickly*

* Click HOTEL column selector

 Find button (binoculars)

 Find what: **Southdown**

Find first:

 Close

* While selected change name of hotel to **Tralee**
<ENTER>

*Change Font*

* Home Tab
Font …
Choose Arial 12
* Print datasheet

Close table Answer Yes to Save Changes

**CREATE 2ND TABLE**

Create Tab

Table

Click on View

Save the table as **State of Bookings**

* Construct table design:

|  |  |  |  |
| --- | --- | --- | --- |
| ***Field name*** | ***Type*** | ***Description*** | **Field Size** |

|  |  |  |  |
| --- | --- | --- | --- |
| Tour No (replace the text in the ID field with this) | AutoNumber | Number in brochure | Long Integer |
| Bookings | Number | Number of bookings made | Long Integer |
| Full | Yes/No | Whether fully booked | Yes/No\*\* |

|  |  |
| --- | --- |
| \*\*Ensure the properties of this show Text Box rather than the Default Check Box. Change this via the Lookup Properties | yesnotextbox |

* Save button

*Enter data*

* Switch to Datasheet view - click datasheet view button

 (TOUR NO completed automatically -)

Records are also available in the excel spreadsheet State of bookings

|  |  |  |
| --- | --- | --- |
| Tour No | Bookings | Full |
|  |  |  |
| **1** | **23** | **No** |
| **2** | **30** | **No** |
| **3** | **50** | **Yes** |
| **4** | **15** | **No** |
| **5** | **65** | **Yes** |
| **6** | **50** | **Yes** |
| **7** | **42** | **No** |
| **8** | **33** | **No** |

*Change Font*

* Arial 12
* Save the table
* Print datasheet
Close table

Create a relationship between the 2 tables

Click on the Database Tools Tab, click on Relationship icon. Add both tables, click in the Tour No field in the first table and drag it into the Tour No field in the second table.

Click Create

A line will join the 2 fields.



Exit the relationships window and save when prompted.

*Simple Query 1*

The 2 tables have a common field - TOUR NO. This enables you to join the tables to create a larger table with more possibilities

* Create a new query in design view and add both tables to the grid

*Note: the tables are joined (primary keys)*

We want to find the Resorts and Hotels that are already full

* Add the fields TOUR NO, FULL and RESORT to the grid.
* Set criteria to find the hotels that are full.
* Set the RESORT field in an ascending sort.

Your query should look like the one below



* Run Query – all full hotels listed
* Save Query - **List of Full Hotels**
* Close Query

*Simple Query 2*

Find any Hunstanton Tours which still has room

Show TOUR NO, HOTEL, RESORT, Full and PRICE fields only (although you are not going to show FULL field you will need to insert it into the grid as you are going to use it for one of the criteria)

* Set appropriate criteria to select these records
* Uncheck Show box in FULL column (this field will not now show)



* Run Query

 Save Query - **List of Hunstanton Hotels with vacancies**

* Print result of query to show the hotels which are not yet full (Printout 8)
* Close Query

Close database file and assemble your printouts

## Report

Create a report based on the tour details table, with the grouping level set for Resort

Landscape

Save the report as rpttourdetails

Close down the database