Practice 3. Queries for processing numerical and text information.

1.Create *Query 5*, performing calculations, processing text information:

- ➢ Copy one of the tables with a new name. In Design mode, delete all fields of the new table, except key field, and add one field of numeric and text types. The results of data processing will be entered into these fields in the future,.
- ➢ Include the new table in the Data Scheme and connect it with the original (prototype).
- ➢ Create *Query to update a new table* (query type in the context menu).
- ➢ Enter in a numerical field the result of calculations using the numerical fields of 2 related tables and a parameter (multiplier) that is entered in the dialog box.
- ➢ Enter the result of merging of text and other data from several tables into the text box. In this case, it is necessary to convert dates and numbers to the text type (*CStr () function*).
- ➢ For automatic running of these operations, it is necessary to fill in the "*Update*" cell in the *Query form* using the **Expression Builder**.
- ➢ To provide an access to data, include in the *Query* all tables whose fields are used in the constructed expressions.
- ➢ Learn the *SQL statement*.
- ➢ Set the option that displays request to confirm changes in records and run Query on changes. To do this, **Service \ Options \ Edit and Search \ Confirmation**.
- ➢ Open *Update Query*.

2. Create **Query 6** to calculate totals for numeric fields and store that data in a new table or display it as a *cross query*:

- ➢ Create **Request on table creation**.
- ➢ Include in it one of the database tables, which has several numeric fields and a text field with duplicate values.
- ➢ The new table - the result of this query - will contain the results of group operations (**Sum, Avg, Max,** etc.) and the numeric fields of the original table.
- ➢ Make grouping by duplicate text field values. The **Group operations** line is added to the *Query* by the use of context menu.
- ➢ Learn the *SQL statement*.

3. Create **Cross Query 7.**

- ➢ Include in the *Query* one of the tables in which there are at least two arbitrary type fields with duplicate values and a numeric type field.
- ➢ The *Query* should display the totals of **Sum, Avg, Max**, etc. for a numeric field (value).
- ➢ Also, the *Query* must contain grouping by two fields (row headers and column headers).
- ➢ Find out the required categories in the line "**Cross table**" of the **Query form**.
- ➢ Examine the SQL statement.
- ➢ • Pay attention to the icons of different types of *Queries*.
- ➢ Save DB.