



NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2014

INFORMATION TECHNOLOGY P1

MARKS: 150

TIME: 3 hours



* I I N F T D M 1 *

This question paper consists of 11 pages.

INSTRUCTIONS AND INFORMATION

1. This is a three-hour examination. Because of the nature of this examination, it is important to note that you will not be permitted to leave the examination room before the end of the examination session.
2. You require the files listed below in order to answer the questions. They are either on a CD issued to you, or the invigilator/educator will tell you where to find them on the hard drive of the workstation you are using or in a network folder.

<i>P1 Data folder</i>			
<i>P1Q1 Folder</i>	<i>P1Q2 Folder</i>	<i>P1Q3 Folder</i>	<i>P1Q4 Folder</i>
Q1_p.dpr	Q2_p.dpr	Q3_p.dpr	Q4_p.dpr
Q1_p.dfm	Q2_u.pas	Q3_u.pas	DMQ4.dfm
Q1_p.pas	Q2_p.dfm furniture.txt	Q3_p.dfm	DMQ4.pas Q4_u.pas Q4_p.dfm electric.mdb

3. If a CD containing the above files was issued to you, write your name and surname on the label of the CD.
4. Save your work at regular intervals as a precaution against power failures.
5. Rename the *P1 Data folder* as your *Name and Surname*.
6. Type in your name and surname as a comment in the first line of each program.
7. Read ALL the questions carefully. Do only what is required.
8. At the end of this examination session you will be required to hand in the CD with all the files with the work you have done or you must make sure that ALL the files with your work have been saved on the network as explained to you by the invigilator/educator.
9. Ensure that ALL files can be read.
10. During the examination you may use the HELP functions of the software. You may NOT make use of any other resource material.

SCENARIO:

You have just been appointed manager of Grandpa Furniture Shop in East London.

QUESTION 1: DELPHI PROGRAMMING

Customers always want to open accounts with you. In order to verify their credit worthiness you have to call head office in Johannesburg. To speed up the process you decide to design a small program to determine whether a customer is eligible, or not eligible, for credit. Open the program and answer the following questions:

- 1.1 Display the title, name and surname of the customer in one line when the **Check Eligibility** button is clicked. (3)
- 1.2 Calculate tax:

- 1.2.1 Design a function called **NetSalary** which receives the gross salary as a parameter and then returns the net salary after income tax has been deducted.

Make use of the table below to calculate the amount of tax to be paid.
TAKE NOTE: The first R 67 134 per year is non-taxable.

Taxable Income/Year	Tax Rate
R0 – R 165 600	18%
R165 601 – R258 750	25%
R258 751 – R358 110	30%
R358 110 – R500 940	35%
R500 941 – R638 600	38%
R638 601 and above	40%

Example of calculation:

Salary per month is R15 500.00

Annual Salary = R15 500*12 = R186 000.00

Taxable Amount = (R186 000.00 – R67 134.00) = 118 866.00

Annual Tax = 118 866*0.18 = R21 395.88

Monthly Tax = R21 395.88/12 = R1 782.99

Net Salary = R15 500.00 – R1 782.99 = R13 717.01

(15)

- 1.2.2 Call the function and display the Net Salary. (2)
- 1.3 Calculate the Net Family Salary by adding the spouse's net salary to the customer's net salary. Make use of an appropriate method (Netsalary function). (3)
- 1.4 After subtracting all the expenses from the net salary, it should display the income available. (3)
- 1.5 After repaying the loan a customer should be left with a minimum of R3 000 if they are to be approved; otherwise the customer does not qualify for the loan. Calculate the monthly repayment and whether the customer qualifies for the loan. Display your answers.

The screenshot shows a Windows application window titled "Form1". It has a standard title bar with minimize, maximize, and close buttons. Inside, there are several input fields:

- Mr/Mrs/Miss: A dropdown menu showing "Mr".
- Name: A text input field containing "Everyone".
- Surname: A text input field containing "Else".
- Gross Monthly Salary: An input field containing "15500".
- Spouse Gross Monthly Salary: An input field containing "10000".
- Monthly Medical Aid Contrib: An input field containing "2000".
- Monthly Food Expenses: An input field containing "5000".
- Monthly Accommodation: An input field containing "4500".
- Loan Applied for over 24 Months: An input field containing "30000".

Below these fields are two buttons: "Check Eligibility" and "Close". To the right of the "Close" button is a "Hide" button with a visibility icon.

A status message box at the bottom displays the following text:

```
Mr Everyone Else
Your Monthly Net Salary after Tax deduction is 13717.01
Your Family's Monthly Net Salary after Tax deduction is 22924.02
After expenses your income is 11424.02
Monthly Repayment of 1250 You Qualify for the Loan
```

(8)

- Enter your name and surname as a comment line in the first line of the file named Q1_u.pas.
- Save the program.
- Make a printout of the code of the Q1_u.pas file.

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QUESTION 2: DELPHI PROGRAMMING

You are asked to examine the contents of a text file named **furniture.txt** saved in the folder named **P1Q2**. This file contains the data referring to the description of items in stock and a code number for each type of item. Each field is delimited with a comma.

The content of the text file is shown below.

*Emma 3-piece Black,BSEBP70
Grace 4-piece Sleigh - Cherry,BSSSS9
Rimini 2-door Budget Robe,BURBR19*

The first entry example represents:

A furniture item with a description and a special code of **BSEBP70**

The BS means that it's a Bedroom Suite

The BU means that it's a Bedroom Unit

2.1 Declare TWO arrays with class scope, named arrDesc and arrCodes, which can store a maximum of 35 elements. The code numbers will be stored in arrCodes and the descriptions will be stored in arrDesc. (2)

2.2 Write a Boolean function called **Valid** which will receive a string (**sCode**) containing the furniture code and a character (**cDesc**) containing the first letter of the description. In order for the code to be valid, the following rules apply:

- The code must be 7 characters long.
- The first five characters must be uppercase alphabetical characters.
- The next two characters must be numerical digits.
- The third character of the code must be the same as the first character of the description.

(14)

2.3 Reading, checking and displaying:

2.3.1 Write a procedure **loadfile** which must read information from the text file **furniture.txt**. This procedure must open the text file and initialise a loop to read the data. Each line represents a record of a type of furniture in the shop.

Add code to this procedure to test if the text file **furniture.txt** exists. If the file does not exist, a suitable error message must be displayed and the program must terminate.

Add further code to the procedure to initialise the file and to read each line of text from the text file. The descriptions need to be stored in **arrDesc** and the codes need to be stored in **arrCodes**.

2.3.2 Read and Check Button:

The **loadfile** method must be called and all codes need to be validated. The description code for each furniture item must be displayed in the richedit component. If the code is valid then 'Valid Code' must be added; if the code is invalid then 'Invalid Code' must be added.

The total number of valid and invalid codes must also be displayed.

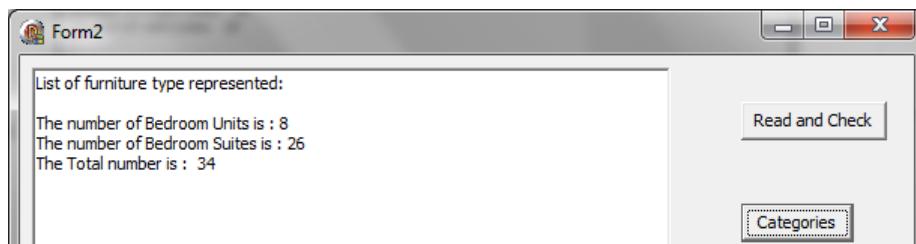
Example of output below:



(31)

2.4 Categories Button: The first two characters of all the Code indicate the category of the furniture, BU stands for Bedroom Unit and BS stands for Bedroom Suite.

Write code to display a list of the furniture types and the number of items in each category and the total items in the list.



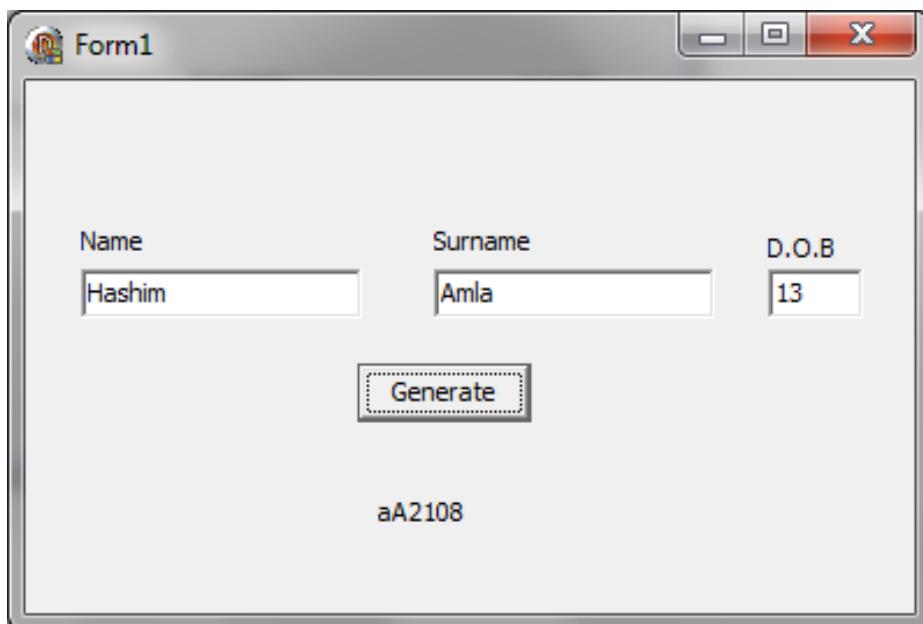
(11)

- Enter your name and surname as a comment line in the first line of the file named Q2_u.pas.
- Save the program.
- Make a printout of the code of the Q2_u.pas file.

[58]

QUESTION 3: DELPHI PROGRAMMING

When you are creating an account for the client on your accounting system, a password has to be automatically generated from the Name, Surname and Day of Birth of the client (eg. 13 November 1997, so the input will be 13). The password is in the format *vvnnnn* where the first *v* is the first vowel found in the client's name and the second *v* is the first vowel in the client's Surname. The *nnnn* is a number generated from the client's date of birth (the day the client was born on). Add 2000 to the date of birth, then add a randomly generated number between 1 and 999 to get the number *nnnn*.



- Enter your name and surname as a comment line in the first line of the file named Q3_u.pas.
- Save the program.
- Make a printout of the code of the Q3_u.pas file.

[20]

QUESTION 4: DELPHI PROGRAMMING AND DATABASE

The database, *electric.mdb*, in the *P1Q4* folder supplied to you, contains details of electrical gadgets in stock at the furniture shop. The database contains a single table named *Televisions*. Data about the different types of televisions is stored in this table. Each record refers to a type of television, the price of one television and the number of televisions of this type in stock. The fields in this table are defined as follows:

Field	Type	Description	Example
ID	Autonumber	AutoID	2
Price	Number	The price of one television in Rands	4560.99
Brand	Text	The brand of television	Sony
Size	Number	The screen size	32
TypeT	Text	The type of television screen	LCD
Stock	Number	Number of Televisions in stock	3

The following is an example of the data contained in the table:

ID	Price	Brand	Size	TypeT	Stock
1	4999.99	JVC	39	LED	10
2	8699.99	JVC	49	LED	6
3	8999.99	JVC	50	3D Plasma	9
4	2499.99	LG	22	LED	12
5	2999.99	LG	23	LCD	7
6	3399.99	LG	24	LED	4
7	4999.99	LG	32	LCD	8
8	4999.99	LG	32	LED	8
9	6699.99	LG	39	LED	3
10	7999.99	LG	42	3D LED	9
11	6999.99	LG	42	Plasma	8
12	8999.99	LG	50	Plasma	2
13	4599.99	Samsung	32	LCD TV	4
14	4299.99	Samsung	32	LCD	1
15	5299.99	Samsung	32	LED	8
16	6299.99	Samsung	43	Plasma	7
17	1999.99	Samsung	32	TV	3
18	2999.99	Sinotec	24	LED	2
19	3599.99	Sinotec	32	LED	5
20	5999.99	Sinotec	39	LED	3
21	4000.00	Sony	22	LCD	2

The folder *P1Q4* also contains an incomplete Delphi project – *Q4_p.dpr* – which contains two units, namely a data module named *DMQ4.pas* and *Q4_u.pas* (the main unit).

The data module, *DataForm*, contains the following components:
ADOConnection, ADOTable and a DataSource.

The program should be able to connect to the database named electric.mdb. When you do QUESTION 4.1 and you find that the connectivity is not in place, use the following steps to establish connection with the database:

- Click on the ADOConnection component in the Data Module.
- Click on the Ellipse button (three dots) to the right of the 'ConnectionString' property in the Object Inspector.
- Click on the Build button which takes you to the Data Link Properties dialogue box.
- Select Microsoft Jet 4.0 OLE DB Provider and click on Next.
- The first option on the Connection tabsheet allows you to browse and find the electric.mdb file.
- Remove the user name Admin.
- Click on the Test Connection button. Click OK on each one of the open dialogue windows.

NOTE: If you cannot establish connectivity with the database at all when you execute the program you must still do and submit the programming code for marking.

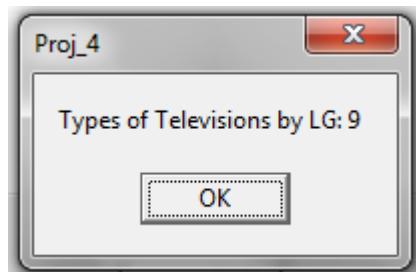
4.1 **Btn A:** Write code to display the data sorted in the following order:
The Brand field in descending order and the Size field in ascending order.

Example of output (first few records):

ID	Price	Brand	Size	TypeT	Stock
1	4999.99	JVC	39	LED	10
2	8699.99	JVC	49	LED	6
3	8999.99	JVC	50	3D Plasma	9
4	2499.99	LG	22	LED	12
5	2999.99	LG	23	LCD	7
6	3399.99	LG	24	LED	4
7	4999.99	LG	32	LCD	8
8	4999.99	LG	32	LED	8
9	6699.99	LG	39	LED	3
10	7999.99	LG	42	3D LED	9
11	6999.99	LG	42	Plasma	8
12	8999.99	LG	50	Plasma	2
13	4599.99	Samsung	32	LCD TV	4
14	4299.99	Samsung	32	LCD	1

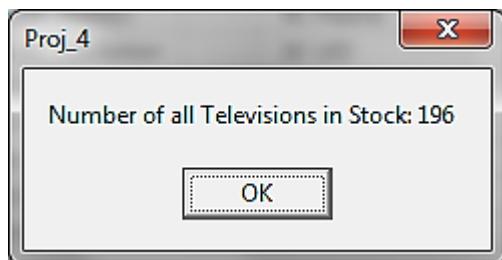
(3)

- 4.2 **BtnB:** Write code to count the number of LG televisions and display the answer using a ShowMessage component.



(4)

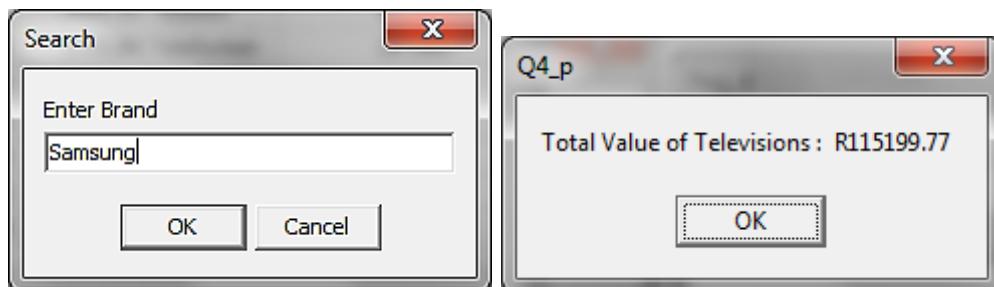
- 4.3 **BtnC:** Write code to count the number of televisions in stock.



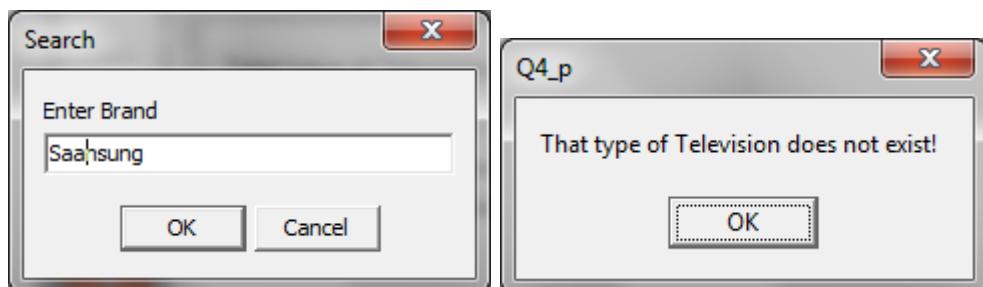
(7)

- 4.4 **BtnD:** Write code to calculate the total Rand value of that particular television brand as entered by the user (use an inputbox component). If the brand entered is not found, display a suitable message.

Example of output:



Or



(12)

4.5 **BtnE:** Enter code to input a new record with the following values:

Price = 1924.00

Brand = LG

Size = 14

TypeT = Monitor

Stock = 2

(7)

4.6 **BtnF:** Enter code to delete the record you have just entered in

QUESTION 4.5.

(5)

- Enter your name and surname as a comment line in the first line of the file named Q4_u.pas.
- Save the program.
- Make a printout of the code of the Q4_u.pas file.

[38]

TOTAL: 150

TOTAL: 150

[38]

- Plaas jou naam en van as kommentaar in die eerste reël van die leer genoem V4_u.pas.
- Stoer die program.
- Druk die kode van die leer V4_u.pas uit.

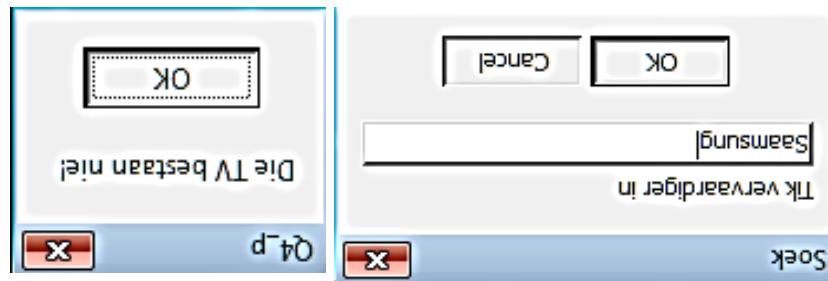
(5)

4.6 **Knooppie F:** Skryfkode wat jy so pas ingesit het in VRAG 4.5 sal skrap.

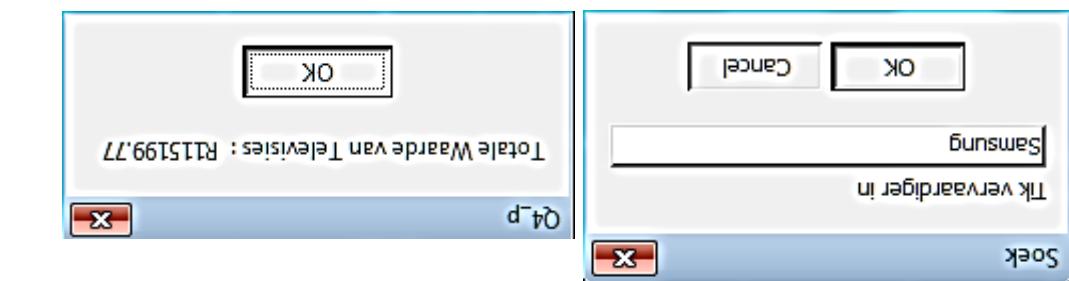
(7)

4.5 **Knooppie E:** Skryfkode wat 'n nuwe rekord met die volgende waardes sal blyvoeg:
Prys = 1924.00
Vervaardiger = LG
Grootte = 14
Type = Monitor
Voorraad = 2

(1)



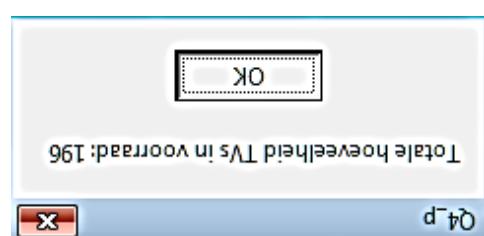
Of



Voorbeeld daarvan:

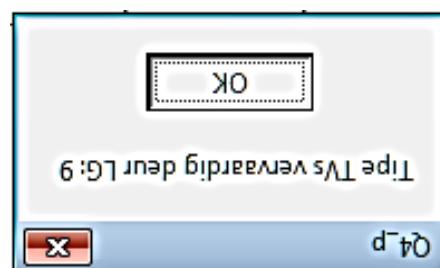
4.4 **Knoppie D:** Skryf kode om die Randwaarde van 'n sekere televisie mak wat deur die gebruiklike ingetik word (gebruik 'n inputbox komponent) te bereken. Indien die spesifieke mak nie gevind word nie moet 'n gespasste boodskap vertoon word.

(7)



4.3 **Knoppie C:** Skryf kode om die aantal televisiestelle in voorraad te tel.

(4)



4.2 **Knoppie B:** Skryf kode om die aantal 'LG Televisions' te tel en vertoon die antwoord in 'n 'ShowMessage' komponent.

(3)

ID	Prys	Vervaardiger	Groote	Type	Voorraad
1	4999.99	JVC	39	LED	10
2	8699.99	JVC	49	LED	6
3	8999.99	JVC	50	3D Plasma	9
4	2499.99	LG	22	LED	12
5	2999.99	LG	23	LCD	7
6	3399.99	LG	24	LED	4
7	4999.99	LG	32	LCD	8
8	4999.99	LG	32	LED	8
9	6699.99	LG	39	LED	3
10	7999.99	LG	42	3D LED	9
11	6999.99	LG	42	Plasma	8
12	8999.99	LG	50	Plasma	2
13	4599.99	Samsung	32	LCD TV	4
14	4299.99	Samsung	32	LCD	1

Voorbeeld van afvoer (Eerste paar records):

stygende volgorde.

orde: Die Vervaardiger veld in daalende volgorde en die Groote veld in knoppie A: Skryf kode wat die data sal vertoon en sorteer in die volgende

om gemerk te word.

LET WEL: Indien jy nie tot die databases kan konnekter nie wanneer jou program hardloop nie moet jy nog steeds die vare beantwoord en dit inhouding

windows.

- Klik op 'Test Connection' button. Klik OK op elkeen van die open dialogue
- Verwyder die gebruikersnaam Admin.
- Elektric.mdb lees te navigeer.
- Die eerste optie op die Connection tabblad sal jou toelaat om na die Kies Microsoft Jet 4.0 OLE DB Provider en klik op Next.
- Klik op die 'Build' knoppie wat jou sal neem na die Data Link Properties dialogue box.
- Klik op die 'ConnectionString property' in die Object Inspector.
- Klik op die Ellipse knoppie (drie kolletjies) aan die regterkant van die ConnectionString property in die Data module.

het nie plasgevind nie, gebruik die volgende stappe om 'n konneksie op te stel:
Konnekter: Indien jy besig is met VRAG 4.1 en die konneksie tot die databases is veroondsestel om tot die databases naamlike elektric.mdb te

Die 'data module', DataForm, bevat die volgende komponente: ADOConnection, 'ADOTable' en 'DataSource'.

Die leer P1Q4 bevat 'n onvoltooide Delphi projek - V4.pdr - wat twee eenhede bevat, naamlik 'n 'data module', DMO4.pas en V4.u.pas (die 'main unit').

Veld	Type	Beskrywing	Voorbeeld	Voorraad	Number	Groote	Vervaardiger	Text	Voorraad
ID	Autonummer	AutoID							
4	8999.99 JVC	50 3D Plasma	9	49 LED	6	23 LCD	4	3399.99 JVC	12
5	2999.99 LG	22 LED	12	24 LED	4	23 LCD	7	4999.99 LG	7
6	3399.99 LG	32 LCD	8	24 LCD	8	23 LCD	7	4999.99 LG	6
7	4999.99 LG	32 LCD	8	24 LCD	8	23 LCD	6	6999.99 Sony	6
8	4999.99 LG	32 LCD	8	24 LCD	8	23 LCD	5	6999.99 Sony	5
9	6999.99 LG	39 LED	3	24 LCD	4	23 LCD	4	4999.99 Samsung	4
10	7999.99 LG	39 LED	3	24 LCD	4	23 LCD	3	6299.99 Samsung	3
11	6999.99 LG	32 LED	3	24 LCD	4	23 LCD	3	1999.99 Samsung	3
12	8999.99 LG	32 LED	2	24 LCD	4	23 LCD	2	1999.99 Samsung	2
13	4299.99 Samsung	32 LCD TV	2	24 LCD	4	23 LCD	2	2999.99 Samsung	2
14	4299.99 Samsung	32 LCD	1	24 LCD	4	23 LCD	1	2999.99 Samsung	1
15	5299.99 Samsung	32 LED	8	24 LCD	4	23 LCD	8	4299.99 Samsung	8
16	6299.99 Samsung	32 LED	8	24 LCD	4	23 LCD	8	4299.99 Samsung	7
17	1999.99 Samsung	32 TV	3	24 LCD	4	23 LCD	3	1999.99 Samsung	3
18	2999.99 Samsung	24 LED	2	24 LCD	2	23 LCD	2	2999.99 Samsung	2
19	3599.99 Sintotec	32 LED	5	24 LCD	2	23 LCD	2	6999.99 Sony	2
20	5999.99 Sintotec	39 LED	3	24 LCD	1	23 LCD	1	6999.99 Sony	1
21	4999.99 Sony	32 LCD	2	24 LCD	1	23 LCD	1	6999.99 Sony	1
22	6999.99 Sony	40 LCD	6	24 LCD	1	23 LCD	1	6999.99 Sony	1
23	6999.99 Sony	40 LED	2	24 LCD	1	23 LCD	1	6999.99 Sony	1
24	3699.99 Telelex	28 LED	2	24 LCD	1	23 LCD	1	7999.99 Telelex	1
25	3399.99 Telelex	32 LED	7	24 LCD	1	23 LCD	7	7999.99 Telelex	7
26	4199.99 Telelex	32 LED	7	24 LCD	1	23 LCD	7	7999.99 Telelex	7
27	5599.99 Telelex	42 LCD	2	24 LCD	1	23 LCD	2	7999.99 Telelex	2
28	7999.99 Telelex	50 Plasma	3	24 LCD	1	23 LCD	1	7999.99 Telelex	1
29	1899.99 Telefunken	20 LED	5	24 LCD	1	23 LCD	5	2999.99 Telefunken	5
30	2299.99 Telefunken	22 LED	7	24 LCD	1	23 LCD	7	2999.99 Telefunken	7
31	2999.99 Telefunken	29 LED	7	24 LCD	1	23 LCD	7	2999.99 Telefunken	7
32	3399.99 Telefunken	32 LED	8	24 LCD	1	23 LCD	8	3299.99 Telefunken	8
33	3999.99 Telefunken	32 LCD	12	24 LCD	1	23 LCD	12	3299.99 Telefunken	12
34	5299.99 Telefunken	37 LED	5	24 LCD	1	23 LCD	5	5299.99 Telefunken	5
*	(New)								

Die volgende is 'n voorbeeld van die data wat huidig in die databasis is:

Veld	Type	Beskrywing	Voorbeeld	Voorraad	Number	Groote	Vervaardiger	Text	Voorraad
ID	Autonummer	AutoID							
1	4999.99 JVC	39 LED	2		3				
2	8999.99 JVC	50 3D Plasma	9	49 LED	6	23 LCD	4	2999.99 LG	7
3	8999.99 JVC	50 3D Plasma	9	49 LED	6	23 LCD	4	2999.99 LG	7
4	2499.99 LG	22 LED	12	24 LCD	4	23 LCD	7	2999.99 LG	7
5	2999.99 LG	22 LED	12	24 LCD	4	23 LCD	7	2999.99 LG	7
6	3399.99 LG	32 LCD	8	24 LCD	4	23 LCD	7	3399.99 LG	8
7	4999.99 LG	32 LCD	8	24 LCD	4	23 LCD	7	4999.99 LG	8
8	4999.99 LG	32 LCD	8	24 LCD	4	23 LCD	7	4999.99 LG	8
9	6999.99 LG	39 LED	3	24 LCD	4	23 LCD	7	6999.99 LG	3
10	7999.99 LG	39 LED	3	24 LCD	4	23 LCD	7	7999.99 LG	3
11	6999.99 LG	42 Plasma	8	24 LCD	4	23 LCD	7	7999.99 LG	8
12	8999.99 LG	50 Plasma	2	24 LCD	4	23 LCD	7	8999.99 LG	2
13	4299.99 Samsung	32 LCD TV	2	24 LCD	4	23 LCD	7	4299.99 Samsung	2
14	4299.99 Samsung	32 LCD	1	24 LCD	4	23 LCD	7	4299.99 Samsung	1
15	5299.99 Samsung	32 LED	8	24 LCD	4	23 LCD	7	5299.99 Samsung	8
16	6299.99 Samsung	32 LED	8	24 LCD	4	23 LCD	7	6299.99 Samsung	8
17	1999.99 Samsung	32 TV	3	24 LCD	4	23 LCD	7	1999.99 Samsung	3
18	2999.99 Samsung	24 LED	2	24 LCD	4	23 LCD	7	2999.99 Samsung	2
19	3599.99 Sintotec	32 LED	5	24 LCD	4	23 LCD	7	3599.99 Sintotec	5
20	5999.99 Sintotec	39 LED	3	24 LCD	4	23 LCD	7	5999.99 Sintotec	3
21	4999.99 Sony	32 LCD	2	24 LCD	4	23 LCD	7	6999.99 Sony	2
22	6999.99 Sony	40 LCD	6	24 LCD	4	23 LCD	7	6999.99 Sony	6
23	6999.99 Sony	40 LED	2	24 LCD	4	23 LCD	7	6999.99 Sony	2
24	3699.99 Telelex	28 LED	2	24 LCD	4	23 LCD	7	7999.99 Telelex	2
25	3399.99 Telelex	32 LED	7	24 LCD	4	23 LCD	7	7999.99 Telelex	7
26	4199.99 Telelex	32 LED	7	24 LCD	4	23 LCD	7	7999.99 Telelex	7
27	5599.99 Telelex	42 LCD	2	24 LCD	4	23 LCD	7	7999.99 Telelex	2
28	7999.99 Telelex	50 Plasma	3	24 LCD	4	23 LCD	7	7999.99 Telelex	3
29	1899.99 Telelex	20 LED	5	24 LCD	4	23 LCD	7	1899.99 Telelex	5
30	2299.99 Telelex	22 LED	7	24 LCD	4	23 LCD	7	2299.99 Telelex	7
31	2999.99 Telelex	29 LED	7	24 LCD	4	23 LCD	7	2999.99 Telelex	7
32	3399.99 Telelex	32 LED	8	24 LCD	4	23 LCD	8	3399.99 Telelex	8
33	3999.99 Telelex	32 LCD	8	24 LCD	4	23 LCD	8	3999.99 Telelex	8
34	5299.99 Telelex	37 LED	5	24 LCD	4	23 LCD	5	5299.99 Telelex	5
*	(New)								

Die volgende is 'n voorbeeld van die data wat huidig in die databasis is:

Die databasis, electric.mdb, in die P1Q4 leier word aan jou verskaf en bevat data oor elektriese, gadgets, wat in die winkel in voorraad is. Die databasis bevat een tabel genoem 'Televisions'. Data oor die verskillende televisies word in hierdie tabel geslaan in voorraad. Elk record verwys na 'n sekere type televisie en die hoeveelheid daarvan in voorraad. Die vellede in die tabel word soos volg voorgestel:

VRAAG 4: DELPHI-PROGRAMMERING EN DATABASIS

[20]

- Plas jou naam en van as kommentaar in die eerste reg van die leer genoem V3_u.pas.
- Stoor die program.
- Druk die kode van die leer V3_u.pas uit.

The screenshot shows a Microsoft Word document window titled "Form1". Inside the document, there is a table with four columns and one row. The columns are labeled "Naam", "Van", "Amla", and "Dag van Geboortedatum". The row contains the values "Hashim", "Amila", "13", and "Maart". Above the table, the text "aA2042" is displayed. At the top of the table, there is a button labeled "Genereer". The bottom of the table has standard Microsoft Word ribbon icons for saving, opening, and closing.

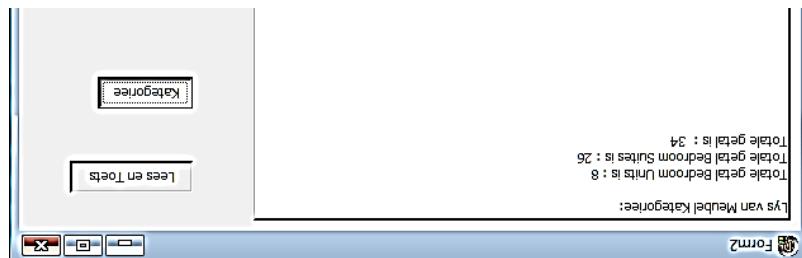
Wanneer jy 'n rekkening vir 'n kliënt op jou rekening sisteme skep, moet daar automadies 'n wagwoord geskep word deur gebruik te maak van die kliënt se naam, Van en Dag waarop die kliënt gebore is (bv. as die kliënt gebore is op 13 November 1987, dan moet 13 ingesleutel word). Die wagwoord is in die formaat VVNNNN: die eerste klinker wat gevind word in die kliënt se naam en die tweede v is die eerste klinker wat gevind word in die kliënt se naam is 'n nommer wat gegenereer word deur van die kliënt se geboortedatum (die dag waarop die kliënt gebore is) gebruik te maak. Voeg 2000 by die getal en voeg h ewekansige nommer tussen 1 en 999 by en dan bestaan die nommer vanneen daaruit.

VRAAG 3: DELPHI-PROGRAMMERING

[58]

- Voeg jou naam en van as kommentaar in die eerste reël van die leer genoem V2_u.pas.
- Stoor die program.
- Druk die kode van die leer V2_u.pas.

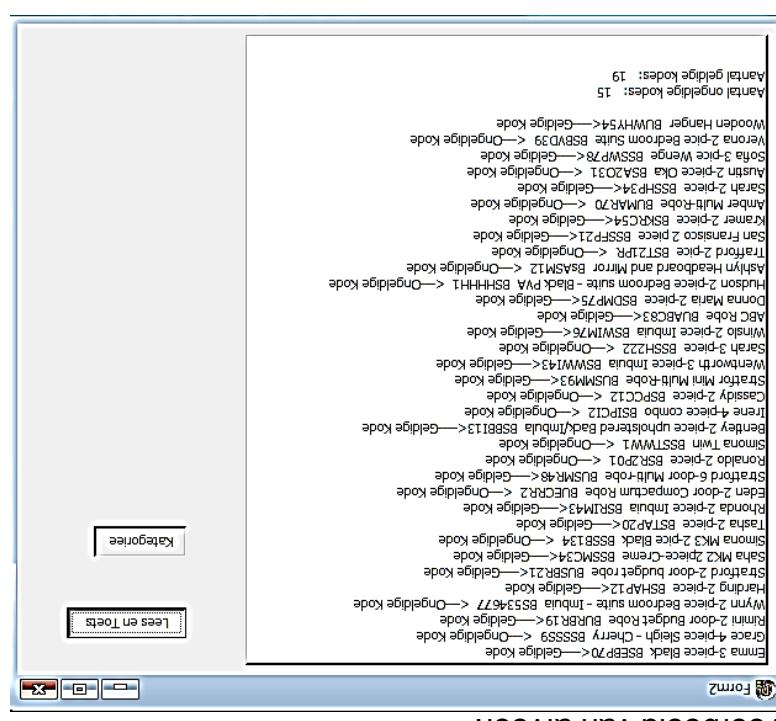
(11)



Skryf kode om hys van meubekategorie en die totale hoeveelheid items in daardie kategorie te vertoon en die totale items in die lys.

Kategorie Knoppie: Die eerste twee karaktere in al die kode verwys na die kategorie waarin die meubels behoort, 'BS', staan vir 'Bedroom Suite', en 'BS', staan vir 'Bedroom Suite'.

(31)



Voorbeeld van afvoer:

vertoon word.

Die totale hoeveelheid gedigde en ongedigde kodes moet ook

ongedigde Kode, bygelyvoeg word.
'Gedigde Kode' bygelyvoeg word. Indien die kode gedig is nie, moet komponent vertoon word. Indien die kode gedig is dan moet word. Die beskrywing van elke meubelstuk moet in die richedit word. Die Loadfile metode moet gerope en alle itemkodes moet getoets word. Die Loadfile metode moet gerope en alle itemkodes moet oor

2.3.2 Lees en Toets Knoppie:

skikkings arrCodes geslooer word.
Die beskrywing moet in die skikkings arrDesc en die kode in die
Voeg nou kode by wat elke reël van die teksleer insieer en inlees.
en die program moet toe maak.
Indien dit nie bestaan nie moet h gepaste boodskap vertoon word
Voeg kode by om te toets of die teksleer **meubels.txt** bestaan.

stel h aparte item in die meubewinkel voor.
en h lus insieer om die data in te lees. Elke reël van die teksleer
meubels.txt lees. Hierdie prosedure moet die teksleer oop maak
2.3.1 Skryf 'n prosedure **loadfile** wat die inligting vanaf die teksleer

2.3 Lees, toets en vertoon:

- (14)
- Die eerste karakter van die beskrywing.
 - Die derde karakter van die kode moet dieselfde wees as die eerste volgende reëls.
 - Die volgende twee karakters moet syfers wees.
 - Die eerste vyf karakters moet hoofletters wees.
 - Die kode moet 7 karakters lank wees.

volgende reëls geld:
letter van die beskrywing benvat. Vir die kode om korrek te wees moet die wat die meubelstuk se kode bevat en h karakter (CBestek) wat die eerste SKryf 'n Boolese funksie genoem, Geldig, wat 'n string (skode) sal ontvang

(2)

2.1 Verklaar twee skikkings met 'n class scope', genoem arrDesc en arrCodes,
arrCodes skikkings geslooer en die beskrywing van die item in die arrDesc
wat 'n maksimum van 35 elemente kan stoor. Die itemkode word in die
Meubelstuk met kode BSEBP70
Die eerste reël van die voorbeelddata kan soos volg geïnterpreteer word:

Rimini 2-door Budget Robe, BURBR19
Grace 4-piece Sleigh - Cherry, BSSSS9
Emma 3-piece Black, BSEBP70

Die inhoud van die teksleer word soos volg getoon.
Items in voorraad asook h itemkode vir elke item.
Dit is geslooer in die gids genoem P1Q2. Hierdie leër stoor die beskrywing van
Jy word gevra om die inhoud van die teksleer genoem **meubels.txt** te bestudeer.

VRAAG 2: DELPHI-PROGRAMMERING

[34]

- Voeg jou naam en van as kommentaar in die eerste reël van die leer genoem V1_U.pas.
- Stoor die program.
- Druk die kode van die leer V1_U.pas.

(8)

Mr/Mev/Mei Naam Van

Eggeneoot Bruto Maandelikse Salaries:

Maandelikse Mediese Fondse:

Maandelikse Verbyl:

Length oor 24 Maande:

Goedekunng

Mnr Juan Stydom
Jou maandelikse netto salaris na belasting is 13177.01
Jou maandelikse netto salaris na kwalifiseer vir die lening is 22924.02
Jou inkomste na al die afrekkings is 11424.02
Maandelikse Paaliment is 1250 Jy kwalifiseer vir die lening

- 1.5 Nadat die lening aflatbaar is moet 'n kliënt nog 'n minimum van R 3000 oor hê om goedgekeur te word. Indien dit nie die gevval word die kliënt nie goedgekeur vir die lening nie. Berken of die kliënt vir 'n lening kwalifiseer en indien wel die maandelikse paaliment. Vertoon jou bewindings.

(3)

- 1.4 Na al die uitgawes van die netto salaris afgerek word, moet die beskikbare inkomste vertoon word.

(3)

- 1.3 Bereken die Netto salaris van die gesin deur die netto salaris van die eggeneoot by te tel. Maak gebruik van die geskikte metode (NettoSalaris funksie).

(2)

- 1.2.2 Roep die funksie en vertoon die Netto Salaris.

(15)

Salaries per maand is R15 500,00
 Jaarlijkske salaris = R15 500,00 * 12 = R186 000,00
 Belasbare bedrag = (R186 000,00 - R67 134,00) = 118 866,00
 Jaarlijkske belasting = 118 866 * 0,18 = R21 395,88
 Maandelikse belasting = R21 395,88 / 12 = R1 782,99
 Netto salaris = R15 500,00 - R1 782,99 = R13 717,01

Voorbeeld van bewerking:

Belasbare inkomste/jaar	Belasting	Presentasie
R0 - R165 600	18%	
R165 601 - R258 750	25%	
R258 751 - R358 110	30%	
R358 110 - R500 940	35%	
R500 941 - R638 600	38%	
R638 601 en meer	40%	

LET WEL: Die eerste R67 134 per jaar is belastingvry.

1.2.1 Onwerp 'n funksie genoem **NettoSalaris** wat die brutto salaris as 'n parameter sal ontvangoen en die netto salaris na belasting afgetrek is, teruggstuur. Gebruik die tabel hieronder om te bereken hoeveel belasting betaal moet word.

1.2.1

1.2 Bereken belasting:

(3)

1.1 Vertoon die titel, naam en van, van die kliënt in een reël wanneer die **Geedkering** knoppie gedruk word.

Kliënte wil altyd rekening by die winkel oopmaak. Om hulle kredietwaardigheid te toets moet jy die heetyd die hoofkantoor in Johannesburg skakel. Om die proses te bespoedig het jy besluit om 'n klein programmeertje te skryf wat sal bepaal of 'n kliënt kwaliifiseer om op krediet te mag koop of nie. Maak die volgende programma op en beantwoord die vrae wat volg:

VRAG 1: DELPHI-PROGRAMMING

Jy is aangeset as die bestuurder van Grandpa Furniture Shop in Oos-Londen.

SCENARIO:

1. Hierdie is 'n drie-uur eksamen. Weens die aard van hierdie eksamen sal jy nie toegelaat word om die eksamenlokaal te verlaat voor die eksamen sessie voltooi is nie..
2. Jy benodig die leers hieronder gespesifieer vir jou om die vare te kan beantwoord. Dit sal of op 'n CD aan jou verskaf word, of die toesighouer/onderwyser sal vir jou sê waar jy dit op die hardeskyf van die werkstasie wasoor jy werk of in 'n netwerkgrids kan vind.
3. Indien 'n CD met die leers aan jou verskaf is, skryf jou naam en van op die etiket van die CD.
4. Stoer jou werk gereeld as 'n voorsorg indien daar 'n kragonderebrekking plaasvind.
5. Herbenoem die Q1 gidsleer na Jou Naam en Van.
6. Tik jou naam en van as kommentaar in die eerste reël van elke program.
7. Lees AL die vare noukeuring en doen net wat gevra word.
8. Teen die einde van die eksamen sessie sal daar van jou verwag word om die CD met al jou geslaagde werk in te handig, of jy moet seker maak dat AL die leers met jou antwoorde korrek geslaag is in die netwerkgrids wat deur jou toesighouer/onderwyser aangewys is.
9. Maak seker ALLE leers oopgemaak kan word.
10. Gedurende die eksamen mag jy gebruik maak van die hulp funksie van die programma wat jy mee besig is. Jy mag NIE van addisionele notas of hulpbronne gebruik maak Nie.

P1Q1 Folder	P1Q2 Folder	P1Q3 Folder	P1Q4 Folder	P1 Datafiles
V1_p.dpr	V2_p.dpr	V3_p.dpr	V4_p.dpr	V1_p.pas V1_p.df V1_p.dpr V1_p.dpr V1_p.pas V2_u.pas V2_u.pas V2_u.pas V2_u.pas V3_p.df V3_p.df V3_p.df V3_p.df V4_u.pas V4_u.pas V4_u.pas V4_u.pas meubels.txt meubels.txt Dmva4.df Dmva4.df Dmva4.df Dmva4.df electric.mdb

INSTRUKSIES EN INLIGTING

Hierdie vraestel bestaan uit 11 bladsye.



TYD: 3 uur

PUNTE: 150

INLIGTINGSSTEGNOLOGIE V1

NOVEMBER 2014

GRAAD 11

SENIOR SERTIFIKAAT
NASIONALE

EDUCATION
PROVINCE OF THE
EASTERN CAPE

