Task GBD01

Exercise 1

We need to store in a file the following information:

The personal data of students who are enrolled in the module database management:

DNI	Surnames	Name	Address	Phone	Studies	Date_of_ birth

A) Based on these data fills in the below table:

Filename:	**Students**
Attributes:	DNI, Surenames, Name, Address, Phone, Studies, Date_of_birth
Sample record:	"13456789", "Salvà, Orfí", "Carme", "C/Major, 14", "971112233", "Bachelor's degree ","12/04/1994"

B) If we keep them on the hard drive of your computer, what type of storage device is it?

It is a location-addressed storage device .

C) What would be the most appropriate kind of access to query data from a student enrolled if the file has an indexed sequential organization?

Indexed access

GRADING CRITERIA: The score assigned to this exercise is 2 points: 1 point for section A, and 0.5 points for each one of the sections B and C.

Exercise 2

A) String together the following records with pointers to logically sort in ascending order by the value of its key.

3	ISO	5	PAR	0	FHW	6	GSBD	1	LMGI	2	FOL	4

B) What type of organization is it?

Linked-Sequential Organization

C) How is called the pointer that marks the first record?

Head Pointer

GRADING CRITERIA: The score assigned to this exercise is 2 points: 1 point for the correct placement of all pointers (section A) and 0.5 points corresponding to sections B and C.

Exercise 3

Stored in a file with random organization on the following records:

KEY	DATA
ISO	Implementation of operating systems
PAR	Planning and Network Management
FHW	Fundamentals of hardware
GSBD	Database Management
LMGI	Markup Language and information management systems
FOL	Training and Guidance

Keys' transformation algorithm:

For each character in the key, get the corresponding numerical value according to the alphabetically order. Add the equivalent values for all characters and, finally, subtract 32 from the value obtained.

Example: FOL (6 + 16 + 12 = 34-32 = 2). Address storage: 2

Address	KEY	DATA
1	GSBD	Database Management
2	FOL	Training and Guidance
3		
4		
5	PAR	Planning and Network Management
6	FHW	Fundamentals of hardware
7		
8		
9	LMGI	Markup Language and information management systems
10		
11		
12		
13	ISO	Implementation of operating systems

ISO	9 + 20 + 16 = **45** -32 =	**13**
PAR	17 + 1 + 19 = **37**-32 =	**5**
FHW	6 + 8 + 24= **38**-32=	**6**
GSBD	7 + 20+2 + 4 = **33** - 32=	**1**

LMGI	12 + 13 + 7 + 9 = **41**-32**=**	**9**
FOL	6 + 16 + 12 = **34**-32=	**2**

GRADING CRITERIA: The score assigned to this exercise is 2 points that correspond to the correct calculation of storage addresses and their placement in the file.

Exercise 4:

Create an indexed sequential organization structure with the following information:

MODULE	CODE	HOURS PER WEEK
0369	Implementation of operating systems	8
0370	Planning and Managing Networks	6
0371	Fundamentals of hardware	3
0372	Database Management	6
0373	Markup Language and Information Systems	4
0380	Training and Guidance	3
0374	Operating Systems Administration	7
0375	Network and Internet Services	7
0376	Implementing Web Applications	5
0377	Management systems of databases	3
0378	Security and high availability	5
0381	Business and Entrepreneurial Initiative	3

Size of each block or segment: 4

INDEXES AREA

0372	**1**
0376	5
0381	9

PRIMARY AREA

1	0369	Implementation of operating systems	8
2	0370	Planning and Managing Networks	6
3	0371	Fundamentals of hardware	3
4	0372	Database Management	6
5	0373	Markup Language and Information Systems	4
6	0374	Operating Systems Administration	7
7	0375	Network and Internet Services	7
8	0376	Implementing Web Applications	5
9	0377	Management systems of databases	3
10	0378	Security and high availability	5
11	0380	Training and Guidance	3
12	0381	Business and Entrepreneurial Initiative	3

OVERFLOW AREA

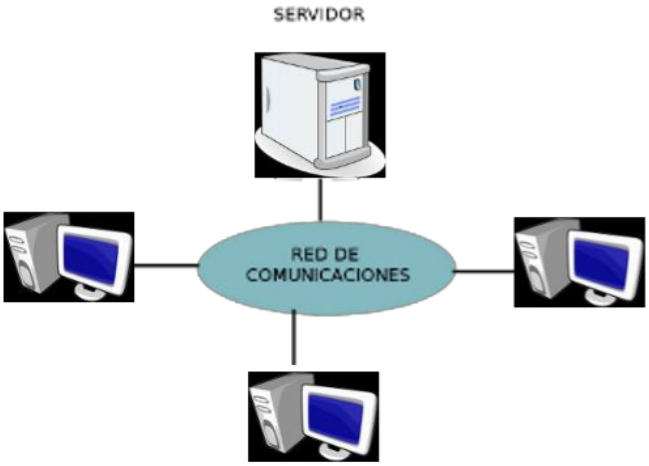
GRADING CRITERIA: The score assigned to this exercise is 2 points: 1 point for the correct establishment of the indexes area and 1 point for the correct placement of records in the corresponding area.

Exercise 5:

We have the following diagram showing the architecture we use in our classes to teach the database module.

Arrange the following software depending on whether it is installed on client or server.

- S.G.B.D. MySQL
- Apache Web Server
- Host Language: PHP
- Operating system Windows 2008 server
- Operating System Windows 7 professional
- GUI graphical access to the database: MySQL Query Browser
- Web Browser: Internet explorer.

<table>
<tr>
<td rowspan="2"> 
</td>
<td>SERVER SOFTWARE
• S.G.B.D. MySQL
• Apache Web Server
• Host Language: PHP
• Operating system Windows 2008 server</td>
</tr>
<tr>
<td>CLIENT SOFTWARE
• Operating System Windows 7 professional
• GUI graphical access to the database: MySQL Query Browser
• Web Browser: Internet explorer.</td>
</tr>
</table>

GRADING CRITERIA: The score assigned to this exercise is 2 points corresponding 1 point with the correct placement of each of the software packages and 1 point to justify the solution given.

INSTRUCTIONS

RESOURCES YOU NEED:

To perform the proposed task you should have:

The corresponding theoretical notes to the work unit GBD01

An internet connection to extend consultation if necessary.

ESTIMATED TIME FOR COMPLETION:

The estimated time needed to perform the task will be 2 hours.

EVALUATION CRITERIA:

Correctly answer each of the sections.

Adequately justify the answers given.

SUBMISSIONS:

You have to upload a PDF file with your answers to the corresponding assignment displayed in the platform. The first line of you PDF file has to be your name. Also the name of the uploaded file has to be:

Surnames_Names_GBD01_Task.pdf