

Lesson 1**Introduction to the project****Multimedia elements:-**

1. data and information
2. hardware
3. software

problem solving stages:-

1. Problem definition.
2. Determine the outputs.
3. Determine the inputs.
4. Perform the Algorithm (the plan of solving the problem)
5. Transfer the Algorithm into a program using one of programming language (coding)
6. Testing and debugging the program.
7. Program documentation.

Lesson 2**Operating System & Internet**

- ★ Folder is a container may contain files or other folders.
- ★ Each file has an extension, which refer to the program used to open this file.

How to :-**1. Create a new folder:**

Right click on free space on desktop → choose new → then choose folder.

2. Delete a Folder:

Right click on a folder → then choose delete.

3. Rename a folder:

Right click on a folder → choose rename → type a new name you want → press enter.

Search using internet**1. Search engines:-**

The most famous search engines are (Google – Yahoo)

2. Encyclopedias:-

- is a structured summarize of human knowledge in each specialization of each field.
- Considered a special kind of referenced that provide the most important information and facts related to various human knowledge.
- The most famous encyclopedia are (wikipedia – موسوعة المعرفة)
- **Encyclopedia organization:-**

- a) Alphabetical
- b) categories or subjects

Lesson 3**Collecting the data of the project**

Spreadsheets (**Excel**) programs used to create **databases**, which deal with a huge number of data easily using datasheets or worksheets.

Datatable (**Workbook**) contains a group of **worksheets**, each worksheet consists of a group of **columns** (fields) and **rows** (records) and the intersection of them introduces **cells**.

	A	B	C
1			
2		Cell B2	
3			

Cell may contain :

1. Textual data.
2. Numerical data
3. Functions or formulas.

Lesson 4**Creating and editing images files****From the programs which used to edit images or photos:-**

1. cinepaint (O/S Linux)
2. PicsArt (O/S Android)
3. Paint.net (O/S windows)

From image files extensions:-

.bmp - .gif - .eps - .jpg - .pex - .png - .wmf - .tif

The types of image files (related to the processing type)**1. Vectors:-**

is a type of diagrams, which displayed as a result of mathematical operations and its resolutions don't change when we resize it.

It has a low capacity. E.g.: .eps - .emf - .wmf

2. Raster:-

consists of a number of pixels and its resolution changes when we resize the image.

It has a large capacity E.g.: .raw - .bmp - .tiff - .gif - .png - .jpg

The images is divided into (fixed pictures) and (animated pictures)

Pictures types characteristics

	name	transparent	animation	capacity	resolution
.raw		x	x	Very large	Very high
.gif	<u>G</u> raphical <u>i</u> nterchange <u>f</u> ormat	✓	✓	small	low
.bmp	<u>B</u> it <u>m</u> ap	x	x	Large	High
.jpeg	<u>J</u> oint photographic <u>e</u> xperts <u>g</u> roup	x	x	Medium	Medium
.png	<u>P</u> ortable <u>n</u> etwork graphics	✓	x	Large	High
.wmf	<u>W</u> indows <u>m</u> eta <u>f</u> iles	✓	x	Small	high

Remarks:-

1. The only type of image files which support animation is (.gif)
2. Visual Basic programming language can deal with the types : (.bmp
- .gif - .jpg - .png - .wmf)
3. The extension (.bmp) deals with the most operating systems types.

Lesson 5**Creating animated pictures****The effects, which we can add to images:-**

1. Gradient colors.
2. Adding text to images.
3. Insert a ready picture as a background to image rather than a solid color.

Animated pictures:-

is a group of fixed pictures grouped together in a form of frames inside a time line.

Lesson 6**Creating and editing audio files****Sound files extension types**

	Quality	Capacity	remarks
.wav	High	Big	Used to record the raw sound.
.mp3	Less than .wav	Compressed (small)	
.wma	Higher than mp3	Compressed	Supported most of windows applications

Programs used to create or edit audio files:-

1. Audacity (O/S windows – Linux)
2. Wavepad (O/S Android)

To record our voices using computers, we use sound recorder application.

To open sound recorder application:-

Start → all programs → accessories → sound recorder

We can add effects to audio files like:

1. adding
2. repeating
3. deleting
4. magnification

Lesson 7

Creating and editing video files

From videos files extensions:-

.mp4 - .3gp - .wmv - .avi

	Quality	Capacity
.3gp	Low	Small
.mp4	High	Medium
.wmv	Very high	big

Some programs, which deal with videos files:-

1. Kdenlive (O/S Linux)
2. Video maker (O/S Android)
3. MovieMaker (O/S Windows)

Lesson 8Preparing the interface of the project & adjust the properties using
Visual basic programThe form contains the controls we add from toolbox

1. Label used to declare other controls. (**lbl**)
2. picturebox used to display a picture on the form (**picbx**)
3. Button used to perform a specific task when we click on it. (**btn**)
4. AxwindowsMediaPlayer used to add a sound file to the form (**wmplayer**)
5. Combobox used to show a drop-down list and we choose only one choice from it. (**cmbbx**)

Remarks:-

1. The tool AxWindowsMediaPlayer doesn't appear in the toolbox by default, so we should display it from :
right click on free space on toolbox – choose items – com components tab – windows media player
2. To display the full picture you add inside the picture box, you should change the property “**size mode**” to “**stretch image**”
3. The name of control should be related to its contents.
e.g.: the combobox which display the names of countries , should has the name “cmbbxstate”
4. The property **visible** has two values:
True: to show or display the control in running mode.
false: To hide the control in running mode.