$$\boxed{\text{Subject \#1: Getting Started}}$$

- Open a login account:
    - Use the Internet explorer to open the web page **http://www.tau.ac.il/newuser**
    - You should see the menu for opening a computer account.
    - **Field #1**: fill your **I.D. number** ("Mispar Zehut"):
      9 digits including "Sifrat Bikoret".
    - **Field #2**: fill your **birthday** in the format DD MM YYYY (day, month, year).
      e.g. 05 12 1978.
    - **Field #3**: fill your **vocal response number** (4 digits).
    - If the data are correct, push the **Check Account** button.
    - You should see your **username**, also called the **login**.
    - You would be asked to enter again your vocal response number.
    - Your temporary **password** is also your vocal response number.

- Wait several minutes and enter your account, using the **Exceed** program, on the **zoot** computer. You would first of all be asked to change your password. The new password, however, takes effect only after several more minutes.

- **Password rules**:
    - Has at least 6 characters.
    - Begins and ends with a **small letter**.
    - Contains at least one **Capital letter** and one **special character**
      (i.e ``~`!@#%^&*()-_+=|\{[}]:;'"<,>.?/^$``)
    - Does **not** contain a meaningful word.

- When you enter your login for the first time, write once (only once): % ~**compphys/init_account**

Subject #2: The UNIX operating system

- The operating system controls the operation of the computer. It manages the file system, the use of memory and the input/output devices. It also controls the operation of other programs (such as XEmacs and the C compiler), and gives them access to these resources. The zoot computer uses the *UNIX* operating system.

- The *UNIX shell* allows us to perform various operations. When you login you will see a line that ends with a **%** . This is the *shell prompt*. Operations can be performed by typing commands at the shell prompt.

- Type the following commands:

    - **% ls** — List the names of the files in the current directory.
      You should have a file called samplefile, a file called form.txt and maybe some other files. (We have created these files and put them in your directory).

    - **% cat** *samplefile* — Show the contents of the file *samplefile*.

    - **% mv** *samplefile sample* — Change the name of the file *samplefile* to *sample*.

    - **% ls**

    - **% cp** *sample staff.txt* — Copy the file named *sample* to a file named *staff.txt*.

    - **% ls**

    - **% rm** *sample* — Remove the file *sample*
      Type 'y' when asked if you really want to remove the file. Typing 'n' will cancel the operation.

    - **% ls**

- The command:
  % man *subject*
  gives information about various *subject*s. Type:
  % man *ls*
  to learn more about the *ls* command. Find out what the command:
  % ls -l
  means. Then try to use it. To exit **man**, type **q**.

- You can use *Directories* to organize your files. When you start working, you are in your *home directory*.

  Type the following commands:

– % **mkdir** *newdir*	Create a new directory, named *newdir*.
– % **ls**	
– % **mv** *staff.txt newdir*	Move the file *staff.txt* into the directory *newdir*.
– % **ls**	Note that the file *staff.txt* is not there.
– % **ls** *newdir*	List the contents of the directory *newdir*.
– % **cd** *newdir*	Change into the directory *newdir*.
– % **ls**	Here it is again!
– % **pwd**	Show the name of the current directory (present working directory).
– % **ls** ..	'..' is always the directory one level upwards.
– % **cp** *staff.txt* ..	Copy the file staff.txt to the directory '..'.
– % **cd** $\sim$	Change to the home directory. '$\sim$' represents the home directory
– % **rm** *newdir/staff.txt*	Remove the file *staff.txt* in the directory *newdir*.
– % **rmdir** *newdir*	Remove the directory *newdir*. This is only allowed if the directory is empty.

- Reading and writing e-mail using Pine:

  - Type the command:
    % **pine**

  - If you see a long message ("This message will appear only once ..."), press "Enter".
  - Use the up and down arrows to move between the commands. Pressing "Enter" chooses a command.
  - Choose: Message Index
    You will see a list of the messages you have. You should have at least one message from the course mailing list. Read it.
  - Pressing 'm' returns to the main menu.
  - Write an e-mail letter to your neighbour:
    1. Choose 'Compose' from the main menu.
    2. Ask your neighbour his/her login name. Write it in the 'To:' field.

    3. Move with the arrows to the message text area, and write a short message.
    4. Send the message by pressing "C-x" (Control + 'x'). Tell your neighbour to read the mail you sent.
  - You can also try to write a message to yourself.
  - Exit pine by pressing 'q'.

Subject #3: The **XEmacs** Editor

XEmacs is a text editor. It allows you to create text files and to edit them.

- In order to get used to the XEmacs editor:

  1. Open the file form.txt:
     `% xemacs form.txt`

  2. Use the arrow keys to move in the form, and fill it in. For a list of XEmacs commands, have a look at the summary below.

  3. Save the file and Exit XEmacs (See the commands below).

  4. Send the file to us by using the following *shell* command:
     `% mail compphys@post.tau.ac.il < form.txt`

- Below we summarize the most useful XEmacs commands.

  – **Command names conventions**:

    C-x : means pressing \<Ctrl\> and \<x\>

    M-x : means pressing \<Esc\> and \<x\> or, in some terminals \<Alt\> and \<x\>

  – Many of the commands can be invoked using the menu. For example, saving the changes to a file can be done by pressing **C-x s** but also by choosing save from the File menu. A third way to do it is to press the "Save" button below the menu bar.

  – **Motion within a window**:

    You can move to a new position by pressing the mouse while it is pointing at that position. The arrow keys can be used to move right/left/up/down.

    C-v or \<**Pg-Down**\> : next page

    M-v or \<**Pg-Up**\> : previous page

    C-a or \<**Home**\> : beginning of line

    C-e or \<**End**\> : end of line

  – **Editing**:

    \<**Delete**\> : delete a character after the cursor

    C-d : delete the character on which the cursor points

    C-k : delete a line (from the cursor to the end)

    C-y : yank back the last deleted "thing"

  – **Block Editing**:

    You can use the mouse to mark a region of text.

    Cut (Edit menu) - deletes the marked region

    Copy (Edit menu) - copies the marked region to a temporary buffer.

    Paste (Edit menu) - pastes the last cut/copied text in the current position.

    Clear (Edit menu) deletes the marked region without remembering it.

  – **Files**:

    C-x C-s or Save (File menu): Write (Save) changes on file

    C-x C-w or Save As (File menu): Save the file with a new name

    C-x C-c or Quit (File menu): Quit the program

    C-x C-f or Open (File menu): Open a file

- **Buffers** are created in XEmacs in order to keep simultaneously several sets of files and other information:

  The Buffers menu allows you to switch between buffers.

  C-x b : change buffer

  C-x C-b : display list of buffers

  C-x s : save some buffers

- **Windows** allow you to divide the screen into two or more regions with different files or different parts of the same file:

  C-x 1 : leave only one window (the one you are in)

  C-x 0 : delete the window you are in

  C-x 2 : split the current window into two windows

  C-x o : go to the `other` window

- **Miscellaneous commands**:

  C-s word : search forward for "word"

  C-u 4 command or **M-4 command** : repeat "command" 4 times. The same effect is achieved also with other numbers

  C-h t : Open the Emacs tutorial. By reading this tutorial you can learn more about XEmacs.

- **If you make a mistake**:

  C-x u or Undo (Edit menu): undo the last command. Undo can be repeated while going back in history

  C-g : aborts the current command.

- **Leaving XEmacs** for Unix:

  C-x C-c or Exit XEmacs (File menu): terminally leave XEmacs. Use it before you logout.

- *background and foreground:*

  1. In the shell window, type: % xemacs
     The xemacs text editor starts running in a new window.

  2. Look at the Unix shell window. The shell is waiting for the xemacs *process* to stop running, and does not accept new commands.

  3. In the Unix shell window, press ctrl-z. This *suspends* the xemacs process. You can now type commands in the Unix shell, but the xemacs doesn't respond.

  4. To make the xemacs respond, you can use the following commands:

  5. **% fg** — makes a suspended process continue to run.

  6. **% bg** — makes a suspended process continue to run in the *background*, so that the Unix shell continues to accept commands.

It is convenient to run xemacs as follows:

% xemacs & , or:

% xemacs *filename* &

The '&' (ampersand) sign means that the xemacs will run in the background.