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Background Before Programming UI, Commands, Concepts



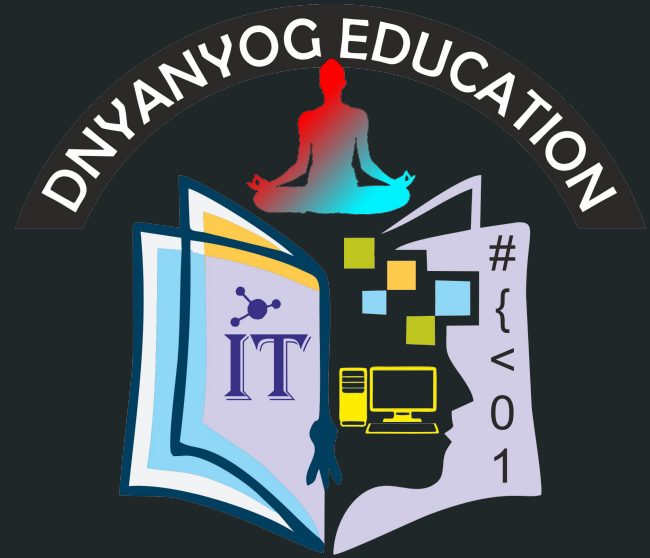
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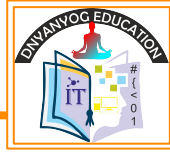
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User Interface

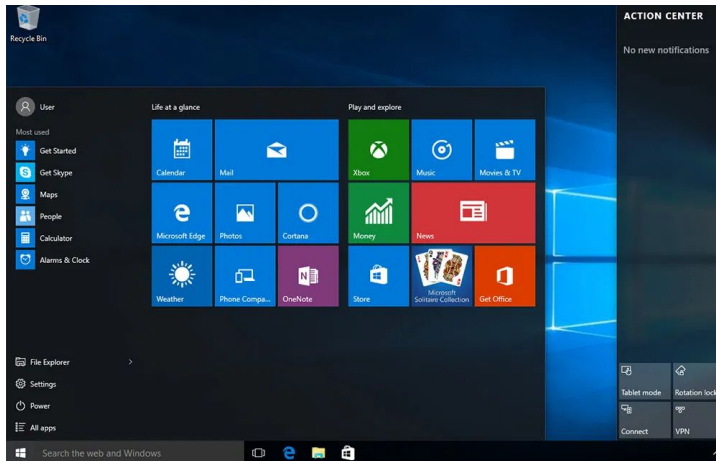


“Ways to access/use applications by user”

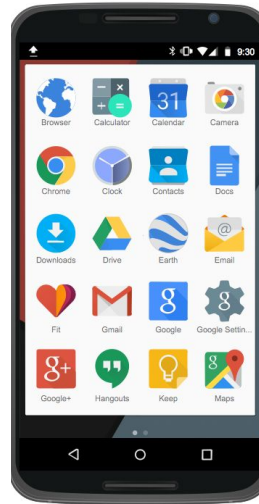
Graphical User Interface

Interface allows users to access application via icons, buttons, audio indicators, mostly used end users (non technical as well)

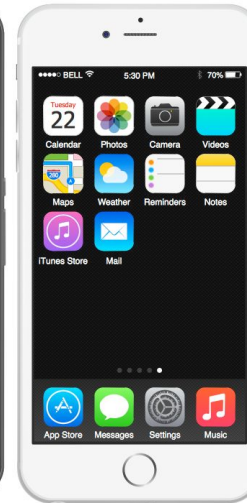
Examples



Windows



Android



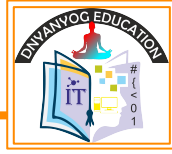
iPhone



MAC



User Interface



“Ways to access/use applications by user”

Console User Interface

Interface allows users to access application commands, mostly used by technical people's/engineers/developers

Examples

```
sh-3.2$ pwd
/Users/vzodge
sh-3.2$ mkdir my_folder
sh-3.2$ cd my_folder/
sh-3.2$ pwd
/Users/vzodge/my_folder
sh-3.2$ ls /Library/
Apple          Developer      Internet Plug-Ins  Preferences      Spotlight
Application Support  DirectoryServices  Java              Printers          StagedDriverExtensions
Audio           Documentation  KernelCollections  PrivilegedHelperTools  StagedExtensions
Bluetooth       DriverExtensions  Keyboard Layouts   Python            StartupItems
Caches          Extensions      Keychains          QuickLook         SystemExtensions
Catalomb        Filesystems     LaunchAgents       Receipts          SystemMigration
ColorPickers    Fonts           LaunchDaemons     Ruby              SystemProfiler
ColorSync       Frameworks      Logs              Sandbox           Updates
Components      GPU Bundles     Modem Scripts     Screen Savers     User Pictures
Compositions    Graphics        OSAnalytics       ScriptingAdditions  User Template
Contextual Menu Items  Image Capture   OpenDirectory     Scripts           Video
CoreAnalytics    Input Methods   InstallerSandboxes  Perl              WebServer
CoreMediaIO      Perl            PreferencePanels    Security
sh-3.2$ date
Wed Oct 5 19:22:07 IST 2022
sh-3.2$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
sh-3.2$
```

MAC Terminal

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Bucky>cd Desktop
C:\Users\Bucky\Desktop>cd ..
C:\Users\Bucky>cd Desktop\Videos
C:\Users\Bucky\Desktop\Videos>cd ../..
C:\Users\Bucky>cd Desktop
C:\Users\Bucky\Desktop>cd Videos
```

Windows DOS/Command Prompt

```
3:20 3G 94%
Welcome to Termux!

wiki:      https://wiki.termux.com
Community forum: https://termux.com/community
Gitter chat: https://gitter.im/termux/termux
IRC channel: #termux on freenode

Working with packages:
* Search packages: pkg search <query>
* Install a package: pkg install <package>
* Upgrade packages: pkg upgrade

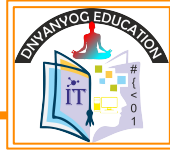
Subscribing to additional repositories:
* Root: pkg install root-repo
* Unstable: pkg install unstable-repo
* X11: pkg install x11-repo

Report issues at https://termux.com/issues
$
```

Android Termux



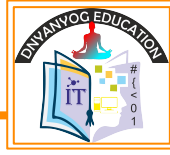
Basic Commands Linux and Windows



Action	Linux/MAC/Termux Command	Windows Command
List the directories from the folder	ls -l	dir -p
Create new directory	mkdir my_dir	md my_dir
Change directory	cd my_dir	cd my_dir
Go back to previous/parent directory	cd ..	cd ..
Delete directory	rm -r my_dir	del my_dir
Copy file	cp a.txt my_dir/a.txt	copy a.txt my_dir/a.txt
View file	cat a.txt	type a.txt



Advance Linux Commands to Learn



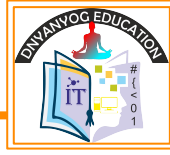
Below commands are must for the developer

tail	date	man
less	time	history
grep	whoami	exit
top	which	telnet
ps	diff	awk
chmod	du	sed
vi	free	uname
tar	top	kill
zip	ipconfig	apt install
unzip	netstat	sudo
wc	wget	cut
diff	curl	ln (LN in small)
sort	echo	touch
uniq	history	mv

Pipe (|)
Ctrl+c
Ctrl+r
!!

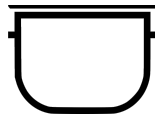
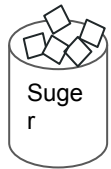


Programming Concept - Instructions, Data & Sequence



Function : **Prepare 2 cup of tea**

Data :



Instructions :

SEQUENCE

1. Light the gas
2. Keep pot on the gas
3. Pour the 1 cup of water
4. Pour the 1 cup of milk
5. Put 2 spoon sugar in the pot
6. Put 1 spoon tea powder in the pot
7. Let the tea boil for 4 min

Things to Note :

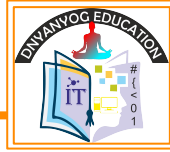
Function
Parameter

Data
Instructions

Sequence



Programming Concept - Instructions, Data & Sequence



Function : **Perform addition of 2 numbers given by user**

Data :

Number 1 given by user

Number 2 given by user

Instructions :

1. Addition of Number 1 and Number 2
2. Print the addition



Programs

```
#include<stdio.h>
```

```
void addition(int argc, char* argv)
```

```
{  
    int a,b,c;  
    printf("Enter two numbers to perform addition");  
    scanf("%d%d",&a,&b);  
    c=a+b;  
    printf("Addition of two number is %d",c);  
}
```

C Language

```
public class Addition
```

```
{  
    public static void addition(int num1, int num2)  
    {  
        int c;  
        c=num1+num2;  
        System.out.println("Addition of two number is "+c);  
    }  
}
```

Java

Things to Note :

Function	Data
Parameter	Instructions
Sequence	



● ————— END ————— ●

