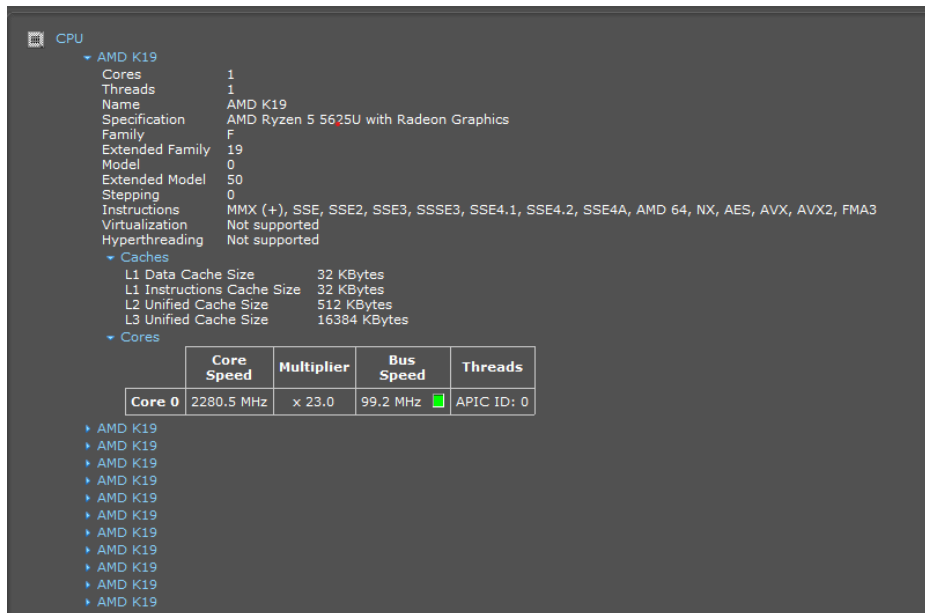


Objective 2: Installing Speccy to identify the specification of the PC like RAM, CPU, Hard Disk, OS etc.

1. CPU Specification:



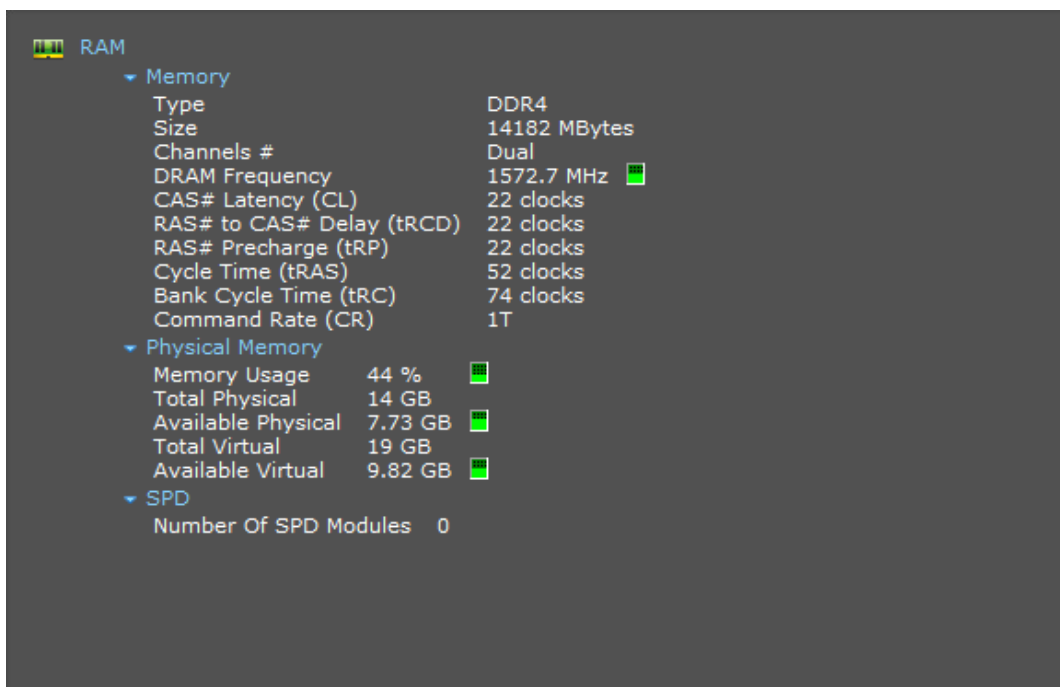
The screenshot displays the CPU section of the Speccy software. It shows the processor as an AMD K19, specifically an AMD Ryzen 5 5625U with Radeon Graphics. Key details include 1 core and 1 thread, a family of F, and an extended family of 19. The processor supports various instructions including MMX (+), SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AMD 64, NX, AES, AVX, AVX2, and FMA3. It does not support virtualization or hyperthreading. The cache hierarchy is listed as L1 Data Cache (32 KBytes), L1 Instructions Cache (32 KBytes), L2 Unified Cache (512 KBytes), and L3 Unified Cache (16384 KBytes). A table provides core-specific data for Core 0, showing a core speed of 2280.5 MHz, a multiplier of x 23.0, a bus speed of 99.2 MHz, and 1 thread. The APIC ID is 0. Below the table, a list of 10 AMD K19 processors is shown, indicating a multi-processor system.

CPU

- AMD K19
 - Cores: 1
 - Threads: 1
 - Name: AMD K19
 - Specification: AMD Ryzen 5 5625U with Radeon Graphics
 - Family: F
 - Extended Family: 19
 - Model: 0
 - Extended Model: 50
 - Stepping: 0
 - Instructions: MMX (+), SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AMD 64, NX, AES, AVX, AVX2, FMA3
 - Virtualization: Not supported
 - Hyperthreading: Not supported
 - Caches
 - L1 Data Cache Size: 32 KBytes
 - L1 Instructions Cache Size: 32 KBytes
 - L2 Unified Cache Size: 512 KBytes
 - L3 Unified Cache Size: 16384 KBytes
 - Cores

	Core Speed	Multiplier	Bus Speed	Threads
Core 0	2280.5 MHz	x 23.0	99.2 MHz	1
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19
- AMD K19

2. RAM Specification:

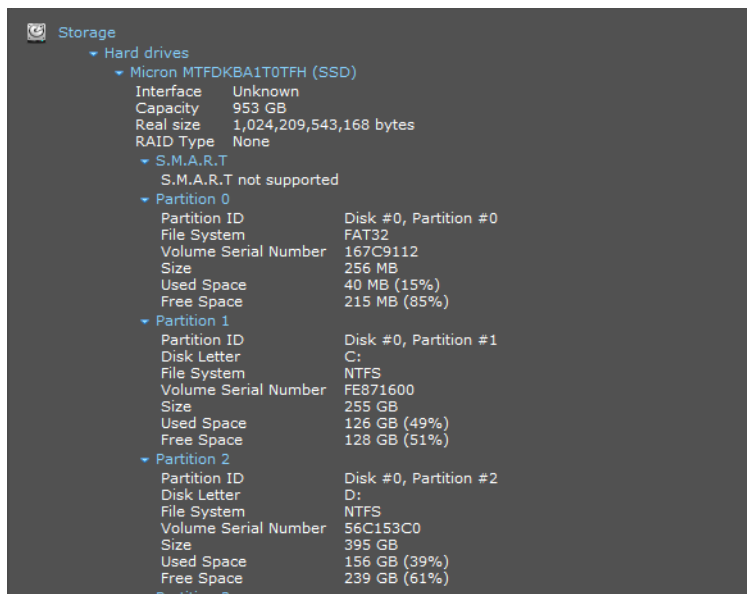


The screenshot displays the RAM section of the Speccy software. It shows the memory type as DDR4 with a size of 14182 MBytes, configured in dual channels. The DRAM frequency is 1572.7 MHz. Timing parameters are listed: CAS# Latency (CL) at 22 clocks, RAS# to CAS# Delay (tRCD) at 22 clocks, RAS# Precharge (tRP) at 22 clocks, Cycle Time (tRAS) at 52 clocks, Bank Cycle Time (tRC) at 74 clocks, and Command Rate (CR) at 1T. The physical memory section shows 44% usage, 14 GB total physical memory, 7.73 GB available physical memory, 19 GB total virtual memory, and 9.82 GB available virtual memory. The SPD section indicates 0 SPD modules.

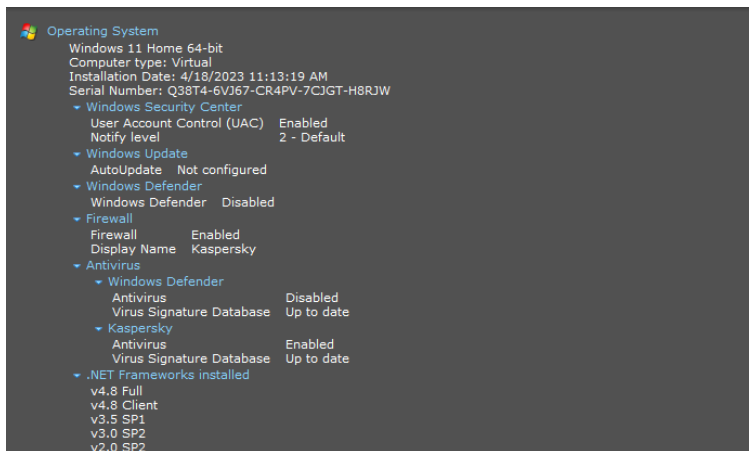
RAM

- Memory
 - Type: DDR4
 - Size: 14182 MBytes
 - Channels #: Dual
 - DRAM Frequency: 1572.7 MHz
 - CAS# Latency (CL): 22 clocks
 - RAS# to CAS# Delay (tRCD): 22 clocks
 - RAS# Precharge (tRP): 22 clocks
 - Cycle Time (tRAS): 52 clocks
 - Bank Cycle Time (tRC): 74 clocks
 - Command Rate (CR): 1T
- Physical Memory
 - Memory Usage: 44 %
 - Total Physical: 14 GB
 - Available Physical: 7.73 GB
 - Total Virtual: 19 GB
 - Available Virtual: 9.82 GB
- SPD
 - Number Of SPD Modules: 0

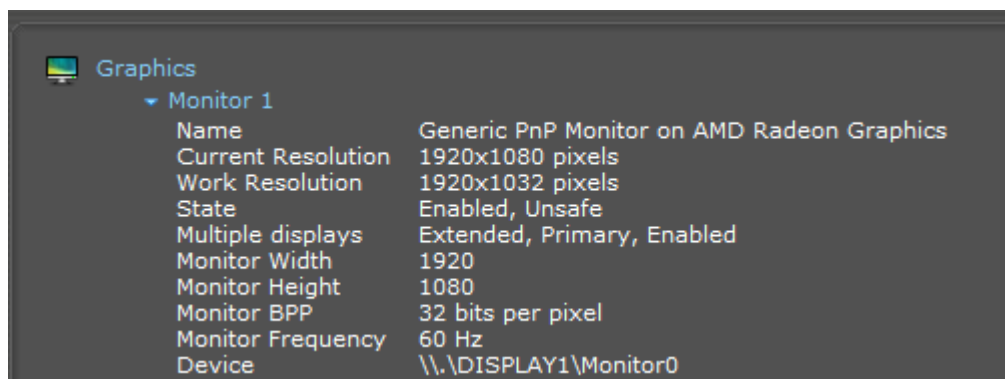
3. Hard Disk Specification:



4. Operating System Specification:



5. Graphics Specification:



Objective 3: Basic commands used in MS-DOS:

1. DIR:

Display a list of files and subdirectories in a directory.

```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.22621.1702]
(c) Microsoft Corporation. All rights reserved.

D:\>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\

04/18/2023  03:18 PM    <DIR>          Assignment && Lab
05/12/2022  09:07 AM             235 crn.txt
05/16/2023  07:11 PM    <DIR>          games
04/22/2023  11:22 PM             112,475 http.pkt
04/29/2023  01:12 AM    <DIR>          Programming Workspace
05/17/2023  12:58 PM    <DIR>          softwares
05/15/2023  10:21 AM    <DIR>          SteamLibrary
04/18/2023  03:35 PM    <DIR>          syllabus
05/17/2023  01:29 PM    <DIR>          utsab
                2 File(s)             112,710 bytes
                7 Dir(s)  257,137,512,448 bytes free
```

2. CD:

Change the current working directory.

```
C:\Windows\System32\cmd.e X + v

D:\>cd utsab

D:\utsab>
```

3. MD:

Create a new directory.

```
C:\Windows\System32\cmd.e X + v

D:\utsab>MD myfolder

D:\utsab>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\utsab

05/17/2023  01:37 PM    <DIR>          .
05/17/2023  01:37 PM    <DIR>          myfolder
                0 File(s)             0 bytes
                2 Dir(s)  257,137,455,104 bytes free
```

4. RD:

Remove a directory.

```
C:\Windows\System32\cmd.e X + v

D:\utsab>rd myfolder

D:\utsab>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\utsab

05/17/2023  01:39 PM    <DIR>          .
              0 File(s)                0 bytes
              1 Dir(s)  257,137,434,624 bytes free
```

5. COPY:

Copies one or more files from one directory to another.

```
C:\Windows\System32\cmd.e X + v

D:\utsab> copy D:\copyme.txt D:\utsab
1 file(s) copied.

D:\utsab>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\utsab

05/17/2023  01:41 PM    <DIR>          .
05/17/2023  01:39 PM                0 copyme.txt
              1 File(s)                0 bytes
              1 Dir(s)  257,137,414,144 bytes free
```

6. DEL:

Deletes one or more files.

```
C:\Windows\System32\cmd.e X + v

D:\utsab>del dummy.txt name.txt


D:\utsab>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\utsab

05/17/2023  01:45 PM    <DIR>          .
05/17/2023  01:44 PM    <DIR>          name
              0 File(s)                0 bytes
              2 Dir(s)  257,137,389,568 bytes free
```

7. TYPE:

Displays the content of the file.



The screenshot shows a Windows Command Prompt window with the title bar "C:\Windows\System32\cmd.e". The command prompt shows the command `D:\utsab>type name.txt` and the output: `utsab, sankalpa, sandesh, jivan,saurav,dipesh,rahul,shiva,rayan,bibek`. The prompt then returns to `D:\utsab>`.

8. REN:

Rename a file or directory.

```
C:\Windows\System32\cmd.e X + v

D:\utsab>ren name.txt studentName.txt

D:\utsab>dir
Volume in drive D has no label.
Volume Serial Number is 56C1-53C0

Directory of D:\utsab

05/17/2023  01:48 PM    <DIR>          .
05/17/2023  01:44 PM    <DIR>          name
05/17/2023  01:47 PM                69 studentName.txt
               1 File(s)                69 bytes
               2 Dir(s)  257,137,356,800 bytes free
```

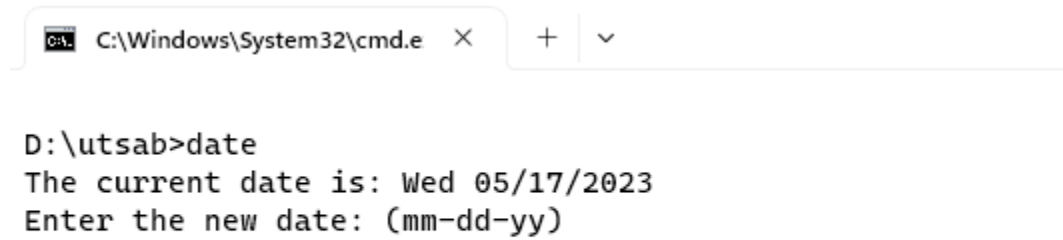
9. ATTRIB:

Displays or changes the attribute of a file.

```
D:\utsab>attrib studentName.txt  
A D:\utsab\studentName.txt  
  
D:\utsab>attrib +r studentName.txt  
  
D:\utsab>attrib studentName.txt  
A R D:\utsab\studentName.txt  
  
D:\utsab>
```

10. DATE:

Show or change current date.



```
C:\Windows\System32\cmd.e  X  +  v

D:\utsab>date
The current date is: Wed 05/17/2023
Enter the new date: (mm-dd-yy)
```

11. EXIT:

Exit the terminal.

Conclusion:

Hence, the objectives of the lab were successfully completed.