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Fråga 1

[1] a) cd- change directory, låter dig flytta directory.

```
C:\WINDOWS\system32\cmd.exe
C:\>cd /?
Displays the name of or changes the current directory.

CHDIR [/D] [drive:][path]
CHDIR [..]
CD [/D] [drive:][path]
CD [..]

    .. Specifies that you want to change to the parent directory.

Type CD drive: to display the current directory in the specified drive.
Type CD without parameters to display the current drive and directory.

Use the /D switch to change current drive in addition to changing current
directory for a drive.

If Command Extensions are enabled CHDIR changes as follows:

The current directory string is converted to use the same case as
the on disk names. So CD C:\TEMP would actually set the current
directory to C:\Temp if that is the case on disk.

CHDIR command does not treat spaces as delimiters, so it is possible to
CD into a subdirectory name that contains a space without surrounding
the name with quotes. For example:

    cd \winnt\profiles\username\programs\start menu

is the same as:
Press any key to continue . . .
```

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.18363.2274]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\jojo2109>cd
C:\Users\jojo2109

C:\Users\jojo2109>dir
Volume in drive C is Windows
Volume Serial Number is 98B6-D95A

Directory of C:\Users\jojo2109

2022-11-08 16:25 <DIR>      .
2022-11-08 16:25 <DIR>      ..
2022-11-08 16:25 <DIR>      3D Objects
2022-11-08 16:25 <DIR>      Contacts
2022-11-08 16:25 <DIR>      Links
2022-06-28 23:09 <DIR>      OneDrive
2022-11-08 16:25 <DIR>      Saved Games
2022-11-08 16:25 <DIR>      Searches
                0 File(s)          0 bytes
                8 Dir(s) 175 913 574 400 bytes free

C:\Users\jojo2109>cd Links
C:\Users\jojo2109\Links>

```

[2] b) find- olika sätt att använda, men i helhet hittar den någon sträng som man anger, ex Hitta alla rader från hej.txt som har strängen "nacksta" i sig.

```

FIND [/V] [/C] [/N] [/I] [/OFF[LINE]] "string" [[drive:][path]filename[ ...]]

/V      Displays all lines NOT containing the specified string.
/C      Displays only the count of lines containing the string.
/N      Displays line numbers with the displayed lines.
/I      Ignores the case of characters when searching for the string.
/OFF[LINE] Do not skip files with offline attribute set.
"string" Specifies the text string to find.
[drive:][path]filename
         Specifies a file or files to search.

If a path is not specified, FIND searches the text typed at the prompt
or piped from another command.

C:\>

```

```

C:\WINDOWS\system32\cmd.exe

C:\Users\jojo2109>find "nacksta" hej.txt

----- HEJ.TXT
nacksta. jag vill sluta skiva nu.

C:\Users\jojo2109>

```

[3] c) dir – listar ut alla filer och mappar som finns current directory. Det går att kombinera dir med bokstäver eller ord för att ta lista ut specifika filer och mappar.

```

C:\>dir /?
Displays a list of files and subdirectories in a directory.

DIR [drive:][path][filename] [/A[:attributes]] [/B] [/C] [/D] [/L] [/N]
  [/O[:sortorder]] [/P] [/Q] [/R] [/S] [/T[:timefield]] [/W] [/X] [/4]


  [drive:][path][filename]
    Specifies drive, directory, and/or files to list.

  /A      Displays files with specified attributes.
  attributes  D Directories          R Read-only files
               H Hidden files         A Files ready for archiving
               S System files         I Not content indexed files
               L Reparse Points       - Prefix meaning not
  /B      Uses bare format (no heading information or summary).
  /C      Display the thousand separator in file sizes. This is the
           default. Use /-C to disable display of separator.
  /D      Same as wide but files are list sorted by column.
  /L      Uses lowercase.
  /N      New long list format where filenames are on the far right.
  /O      List by files in sorted order.
  sortorder  N By name (alphabetic)      S By size (smallest first)
               E By extension (alphabetic) D By date/time (oldest first)
               G Group directories first - Prefix to reverse order
  /P      Pauses after each screenful of information.
  /Q      Display the owner of the file.
  /R      Display alternate data streams of the file.
  /S      Displays files in specified directory and all subdirectories.
  /T      Controls which time field displayed or used for sorting
  timefield  C Creation
               A Last Access
               W Last Written
  /W      Uses wide list format.
  /X      This displays the short names generated for non-8dot3 file
           names. The format is that of /N with the short name inserted
           before the long name. If no short name is present, blanks are
           displayed in its place.
  /4      Displays four-digit years

Switches may be preset in the DIRCMD environment variable. Override
preset switches by prefixing any switch with - (hyphen)--for example, /-W.

C:\>

```

 C:\WINDOWS\system32\cmd.exe

```

C:\Users\jojo2109>find "nacksta" hej.txt

----- HEJ.TXT
nacksta. jag vill sluta skiva nu.

C:\Users\jojo2109>dir
Volume in drive C is Windows
Volume Serial Number is 98B6-D95A

Directory of C:\Users\jojo2109

2022-11-08  16:34    <DIR>          .
2022-11-08  16:34    <DIR>          ..
2022-11-08  16:25    <DIR>          3D Objects
2022-11-08  16:25    <DIR>          Contacts
2022-11-08  16:36    <DIR>          77 hej.txt
2022-11-08  16:25    <DIR>          Links
2022-06-28  23:09    <DIR>          OneDrive
2022-11-08  16:25    <DIR>          Saved Games
2022-11-08  16:25    <DIR>          Searches
                1 File(s)              77 bytes
                8 Dir(s)  175 602 585 600 bytes free

C:\Users\jojo2109>_

```

[4] d) where – kan utföra två grejer recursiv sökande i en dir eller söka igenom en lista eller mapp men inte båda samtidigt.

```
C:\>where /?

WHERE [/R dir] [/Q] [/F] [/T] pattern...

Description:
  Displays the location of files that match the search pattern.
  By default, the search is done along the current directory and
  in the paths specified by the PATH environment variable.

Parameter List:
  /R      Recursively searches and displays the files that match the
          given pattern starting from the specified directory.

  /Q      Returns only the exit code, without displaying the list
          of matched files. (Quiet mode)

  /F      Displays the matched filename in double quotes.

  /T      Displays the file size, last modified date and time for all
          matched files.

  pattern Specifies the search pattern for the files to match.
          Wildcards * and ? can be used in the pattern. The
          "$env:pattern" and "path:pattern" formats can also be
          specified, where "env" is an environment variable and
          the search is done in the specified paths of the "env"
          environment variable. These formats should not be used
          with /R. The search is also done by appending the
          extensions of the PATHEXT variable to the pattern.

  /?      Displays this help message.

NOTE: The tool returns an error level of 0 if the search is
      successful, of 1 if the search is unsuccessful and
      of 2 for failures or errors.

Examples:
  WHERE /?
  WHERE myfilename1 myfile????.*
  WHERE $windir:*.
  WHERE /R c:\windows *.exe *.dll *.bat
  WHERE /Q ??.*
  WHERE "c:\windows;c:\windows\system32:*.dll"
  WHERE /F /T *.dll

C:\>
```

```

C:\WINDOWS\system32\cmd.exe

C:\Users\jojo2109>find "nacksta" hej.txt

----- HEJ.TXT
nacksta. jag vill sluta skiva nu.

C:\Users\jojo2109>dir
Volume in drive C is Windows
Volume Serial Number is 98B6-D95A

Directory of C:\Users\jojo2109

2022-11-08  16:34    <DIR>          .
2022-11-08  16:34    <DIR>          ..
2022-11-08  16:25    <DIR>          3D Objects
2022-11-08  16:25    <DIR>          Contacts
2022-11-08  16:36             77 hej.txt
2022-11-08  16:25    <DIR>          Links
2022-06-28  23:09    <DIR>          OneDrive
2022-11-08  16:25    <DIR>          Saved Games
2022-11-08  16:25    <DIR>          Searches
                1 File(s)              77 bytes
                8 Dir(s)  175 602 585 600 bytes free

C:\Users\jojo2109>where hej.txt
C:\Users\jojo2109\hej.txt

C:\Users\jojo2109>_

```

Fråga 2

- A) Namn - Microsoft Windows 10 Enterprise,
 - a) Version – 10.0.18363 build 18363
 - b) Total Fysisk minne – 15,9 GB
- b) Total Virtuellt minne – 18,695 GB
- c) Kapacitet för sekundärminnet - 238,47 GB
- c) Filsystem - NTFS
- d) C, H och X
- e) [5] PATH - en systemvariabel som används av operating system för att hitta och köra körbara kommand i terminal window eller command line. Ändring av path görs i System Utility som ligger i kontroll panelen.

Fråga 3

- a) [6] % Ledig tid- räknar ut hur många procent (medelvärde) som disk är idle på, genom att sampla PhysicalDisk\% Idle Time performance counter.
- [7] % Privillgerad tid– andelen tid som processen exekverar kod i privillgerad läge, den är i privillgerad läge för att få tillgång till system privat data.
- [7] %Användar tid – tiden som processen befinner sig i användar läge, den är en begränsad process läge som är för appar och subsystem.

[7] %Processor tid – tiden i procent för processorn att utföra något, räknas ut genom att subtrahera 100% med tiden i procent som det tog processorn att utföra arbetet.

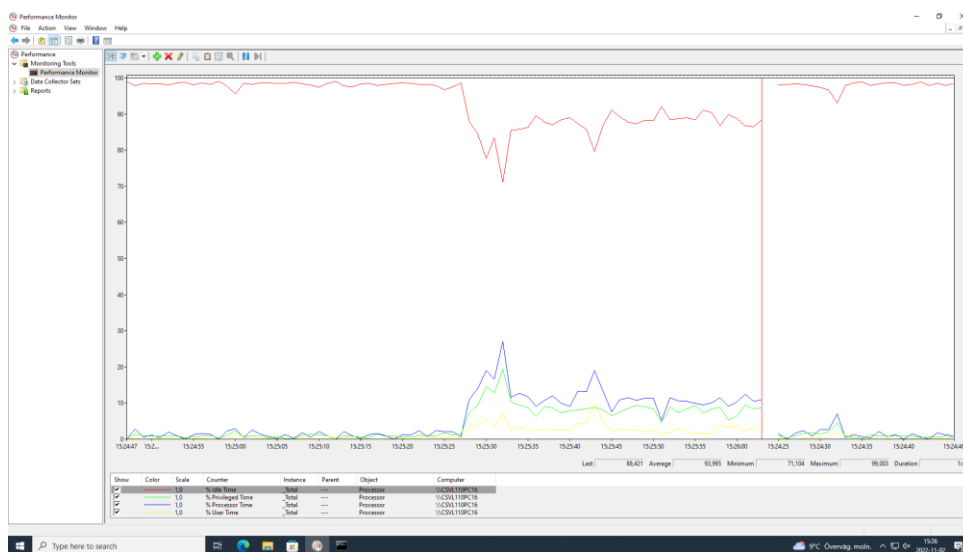
b) Idle avrage time: 96,294

Privileged avrage time: 2,257

Processor avrage time: 3,151

User avrage time: 0,988

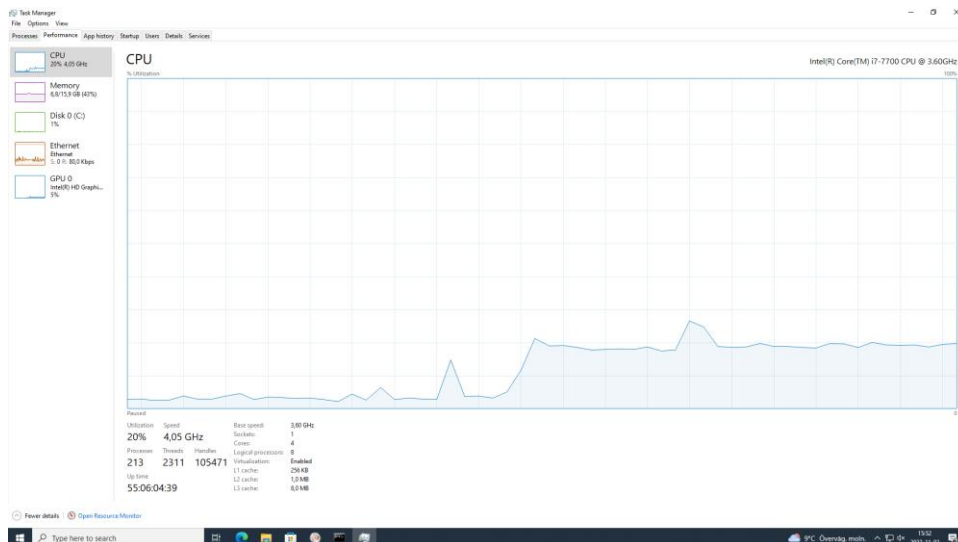
c) Jag ser att idle time går ner och alla andra går upp, det är på grund av att kommandot måste köras och processer sker vilket leder till att systemet måste utföra grejer och vara i idle state i mindre tid.



d) $100 - \text{ledig tid} = \text{processor time}$

Privlegde time + user time = processor time

Uppgift 4



a)

Mer av cpun blir utilized eftersom programmet körs och cpun måste jobba mer.

- ping 8.8.8.8 /n 10 /l 1472 , det som händer är att paketen skickas och tars emot, genom att min dator skickar request packet och får svar. Med större paketstorlek skickas paketen men de tas inte emot.
- Jag hamnar på olika ställen och skickas vidare tills jag når fram till dns.google [8.8.8.8] eftersom jag följer vägen som paketen har tagit. Totala hopp är 13 stycken.
- Task manager men det ändras mellan andra också.
- Services.exe har 267183324 vilket är mer än de andra.
- Acrotary.exe har 32 bitar, den har 32 bitar = fyra miljarder postfack.

Fråga 5

- Idle har den lägsta prioritetsskassen eftersom om en process sker kommer idle time att stanna och processorn jobbar då. Enligt aktivitetshanteraren har den prioriteten normal men när jag gör en djupare sökning ser jag att den är N/A.
- High: csrr.exe

Above normal: msedge.exe

Normal: svchost.exe

Below normal: SynaMonApp.exe

Low: msedge.exe

- Priority Base Taskmgr: 8

Priority Base Idle: 0

Det stämmer med vad de säger.

- [10] En syfte som idle time har är att hålla systemet vaken så att den inte fryser eller stängs av när cpun inte har någonting att göra.

[11] Den primära anledningen till idle time är att eliminera speallfal i schemaanläggaren som skulle uppstå om det inte fanns en idle time. Idle time håller trådarna redo om de inte används.

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