

# Second Session

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## **Bash Scripting for Audio-Visual Preservation**

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# Contents

- reading and parsing input
- processing data
- formatting and writing output

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# Flow control

- branching:  
**if** and **case; select**
- looping:  
**while, until** and **for**

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# Command structure

**\$0**      **\$1**      **\${n}**  
*command argument\_1 ... argument\_n*

common syntaxes of arguments include:

*--parameter*

*--parameter=value*

*-p*

*-p value*

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# Recapitulation

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## Set the working directory

Linux/Mac/Windows Terminal or WSL:

```
cd ~/Desktop
```

Windows locally:

```
cd Desktop
```

Windows on OneDrive Cloud:

```
cd OneDrive
```

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## Edit and run a script

```
nano script
```

```
chmod +x script
```

```
sudo chmod +x script
```

```
./script
```

```
drag-and-drop_script
```

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## Shebang

```
#!/path_to_shell
```

```
#!/path_to_programming_language
```

```
#!/bin/sh
```

```
#!/bin/bash
```

```
#!/usr/local/bin/bash
```

```
#!/usr/bin/env bash
```

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## External commands

```
ffmpeg options arguments  
ffplay options arguments  
ffprobe options arguments  
  
grep options pattern file
```

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## if statement syntax (1)

```
if condition ; then  
    command  
elif condition_n ; then  
    command_n  
else  
    command  
fi
```

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## if statement syntax (2)

```
if command_run_successfully ; then  
    normal_processing  
else  
    error_processing  
fi
```

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## Typical use of if statement (1)

```
if ! data_valid ; then  
    error_processing  
else  
    normal_processing  
fi
```

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## Typical use of **if** statement (2)

```
if ! command_run_successfully ; then
  error_processing
else
  normal_processing
fi
```

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## Built-in commands

**cd** *path*

**echo** *string*

**exit** *value*

**read** *variable*

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## Compute MD5 Checksums

Linux/Mac/Windows Terminal or WSL:

**md5** -r file

**md5sum** file

Windows CMD:

**CertUtil** -hashfile file MD5

**md5sum** file

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