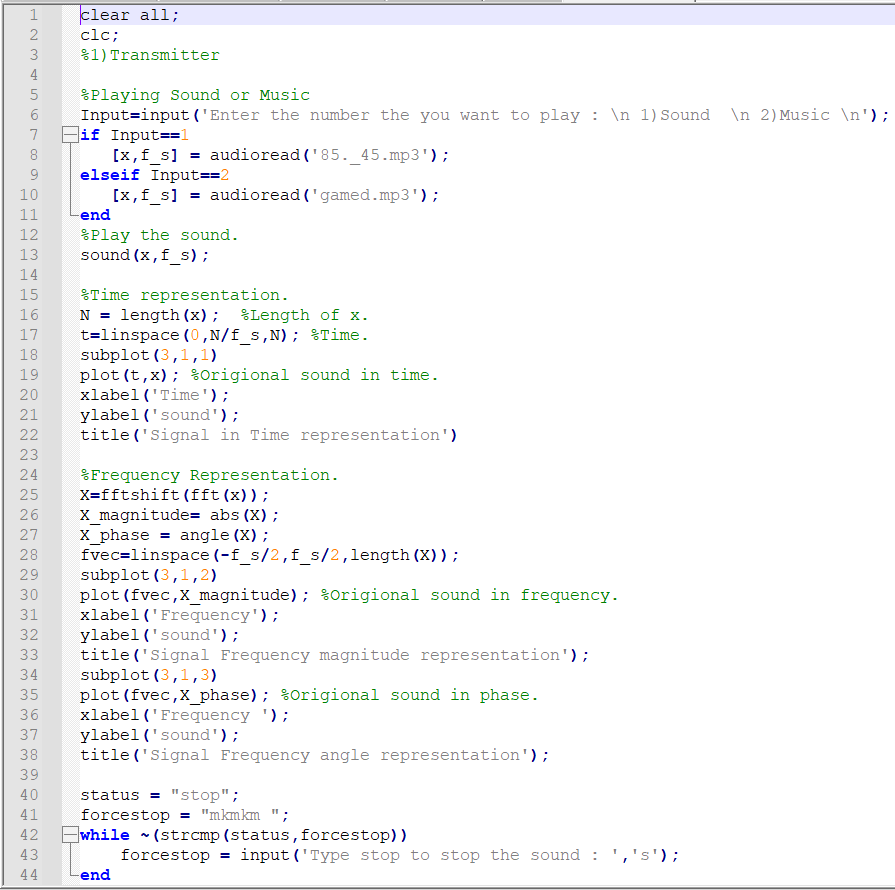
Second project report

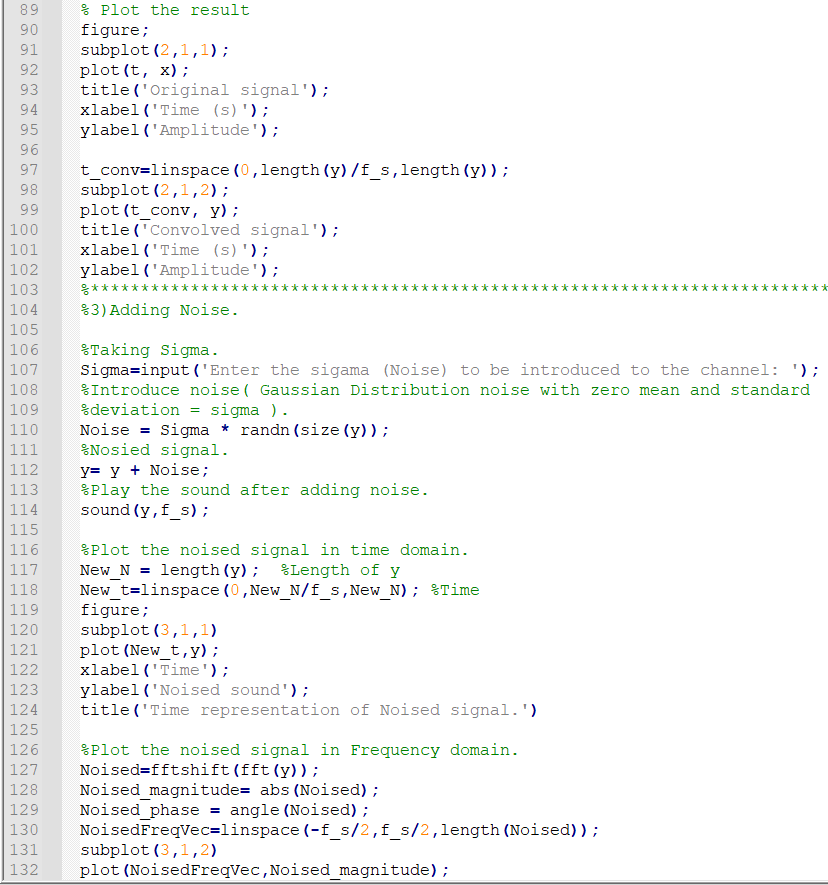
|  |  |
| --- | --- |
| **Name** | **ID** |
| Mostafa Mohamed Abdel-Azeem Hassanen  Mazen Mohamed Hassanen  Mohamed Ashraf Elsayed Mahmoud  Ahmed Abdel-Hakem Abdel-Salam Ali | 20011950  20011161  20011488  20010124 |
|  |  |
| **Section:** | 4 |
|  |  |
| **Department:** | **Electronics and Communication** |

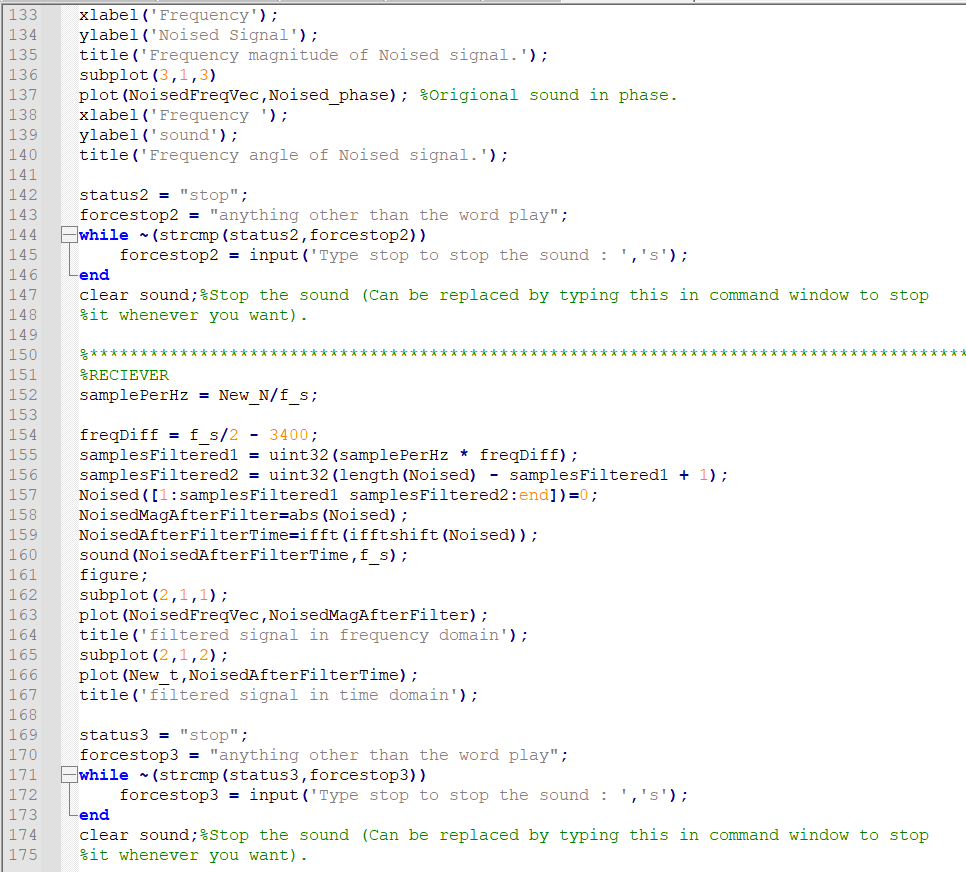
**The code**



A picture containing text, screenshot, software

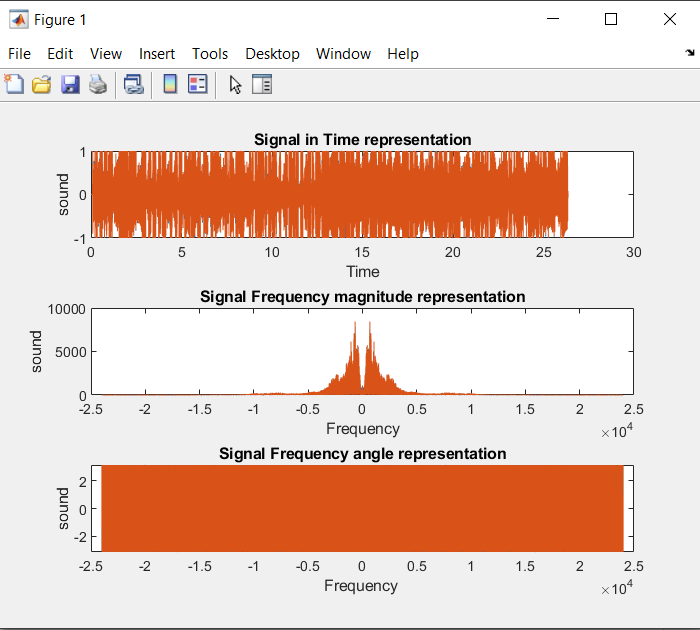
Description automatically generated



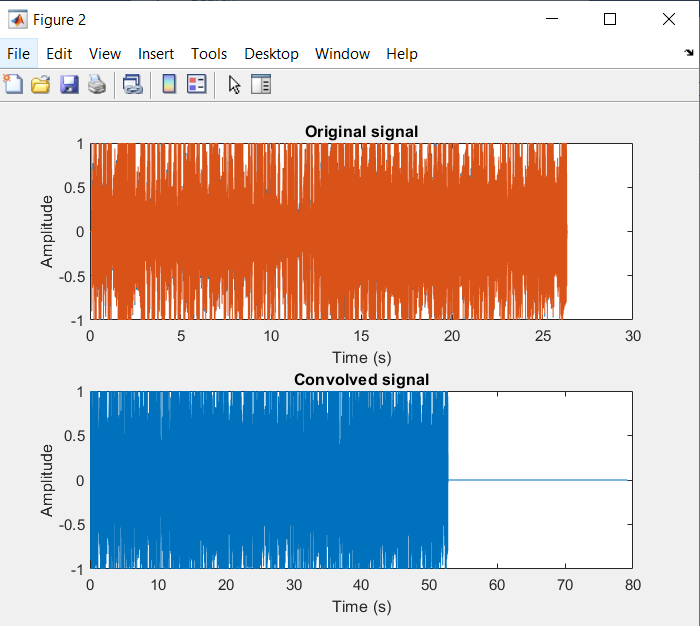


**First: the sound file**

**Output:**

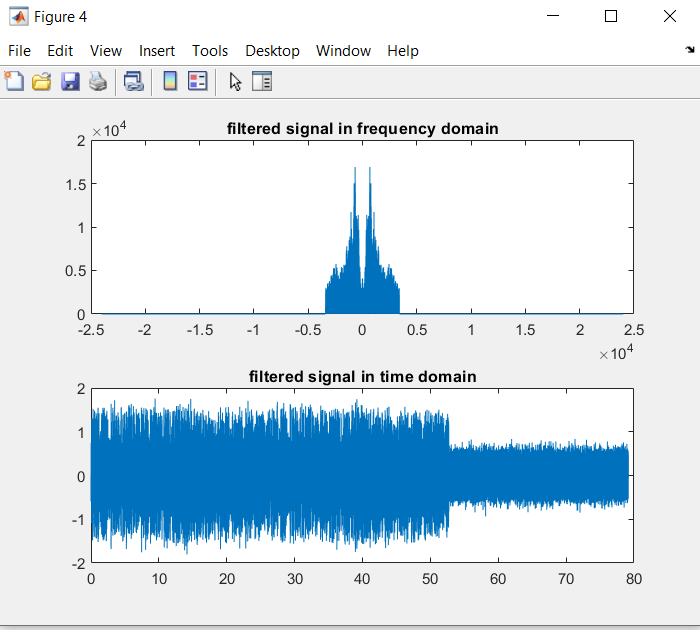


**First Channel:**

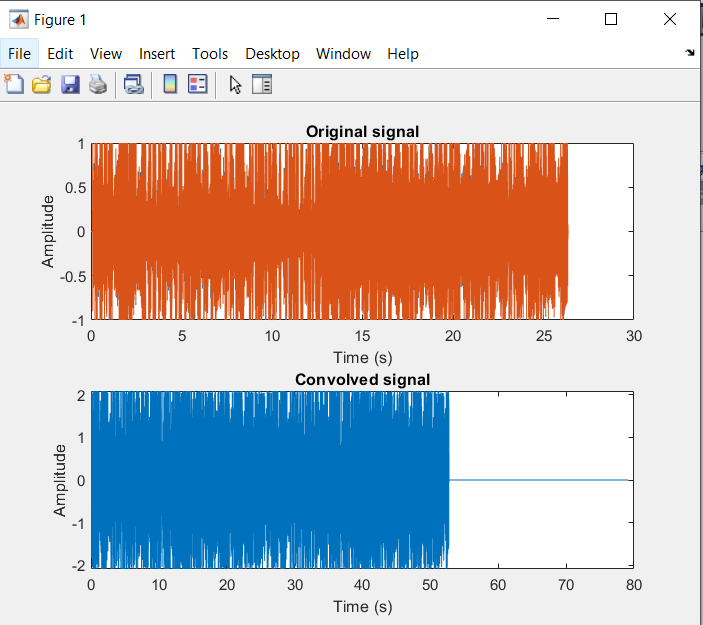


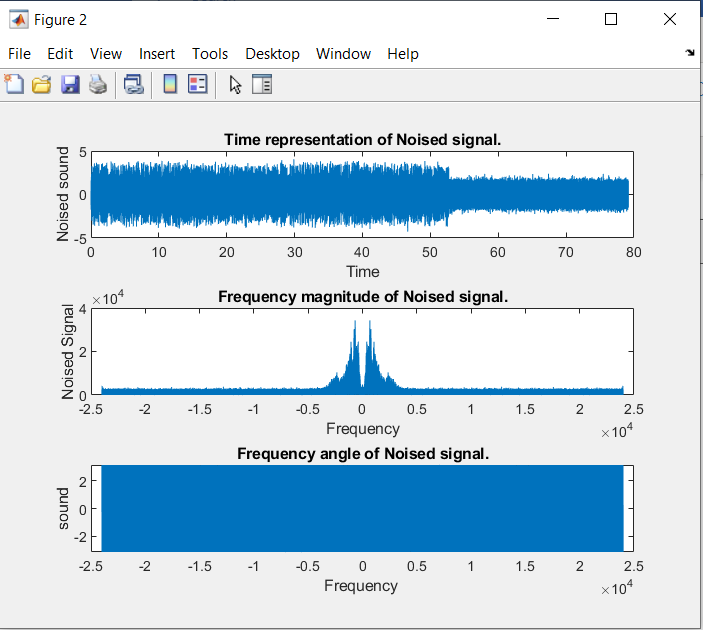
A screenshot of a computer screen

Description automatically generated with medium confidence



**Second Channel:**

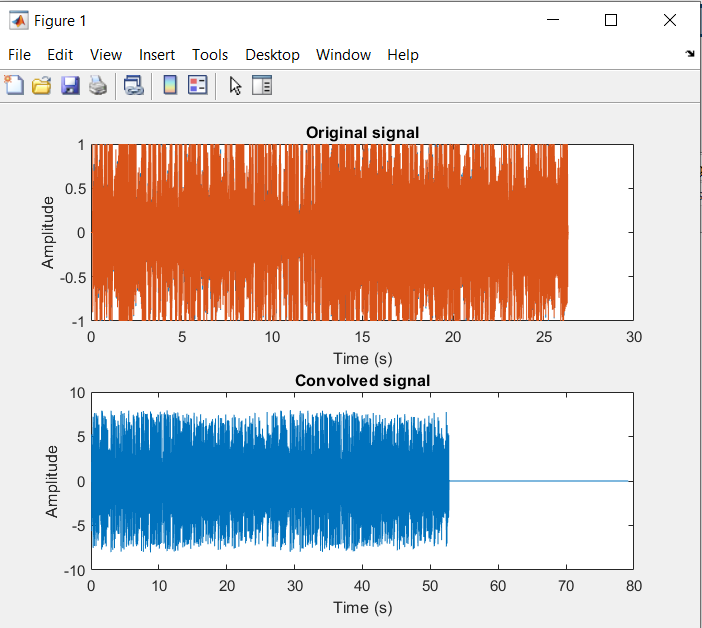




A screenshot of a computer

Description automatically generated

**Third Channel:**



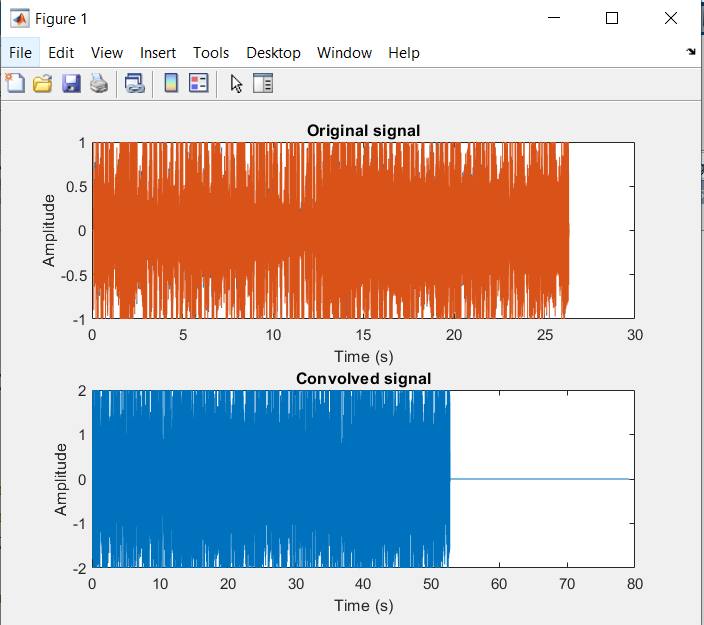
A screenshot of a computer

Description automatically generated

A screenshot of a computer

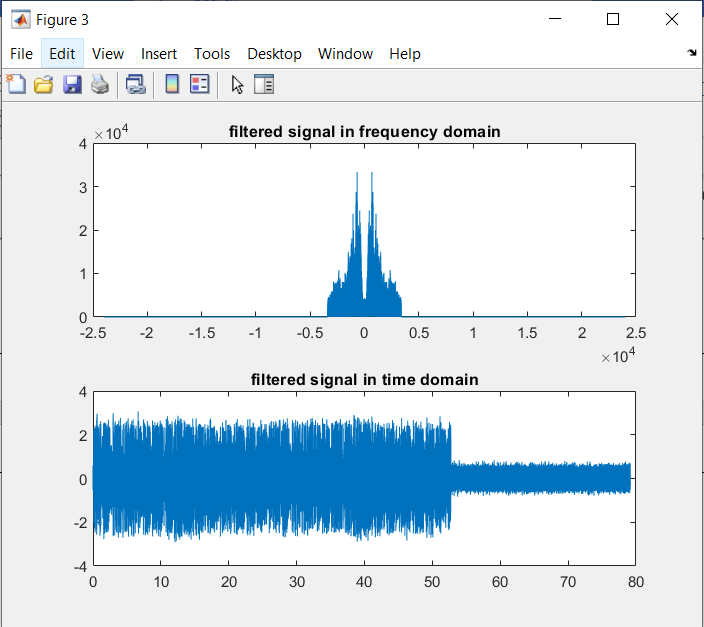
Description automatically generated

**Fourth Channel:**



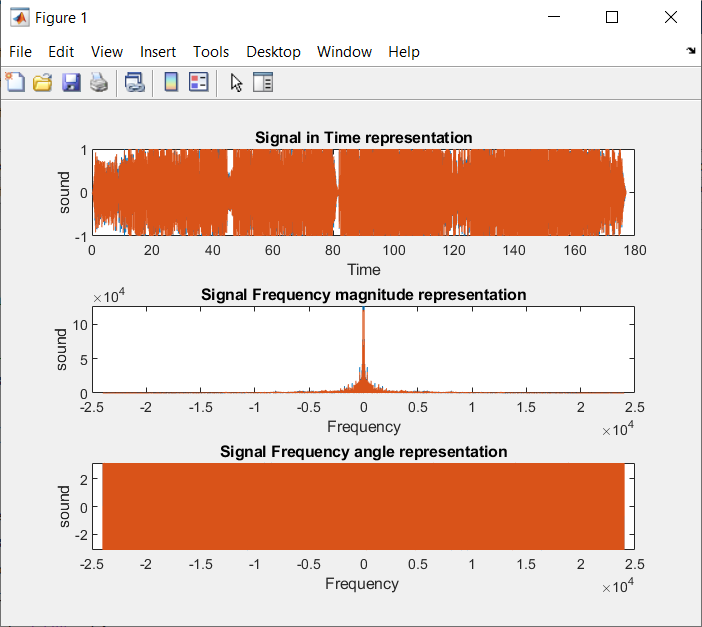
A screenshot of a computer screen

Description automatically generated with medium confidence

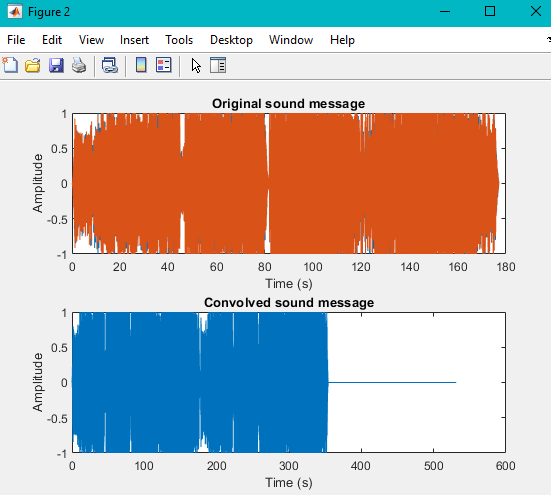


**second: the music file**

Output:



First Channel:



A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Second Channel:

A screenshot of a computer

Description automatically generated with medium confidence

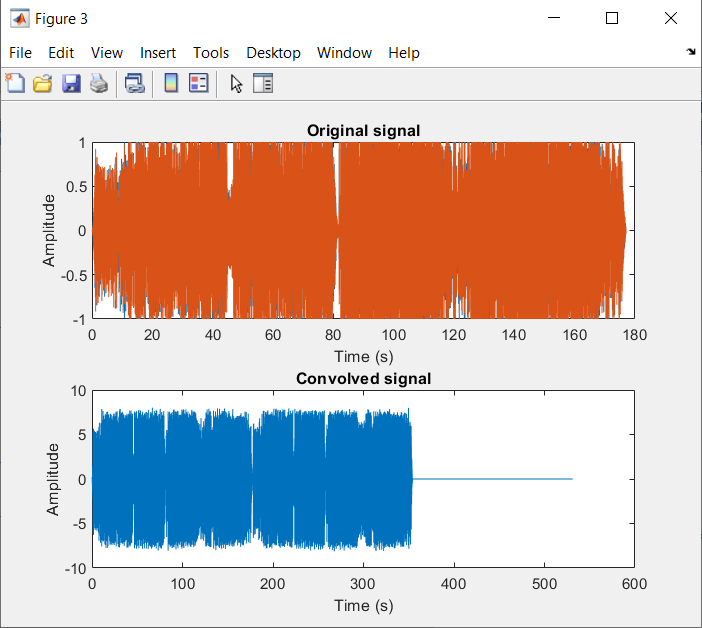
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Third Channel:



A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

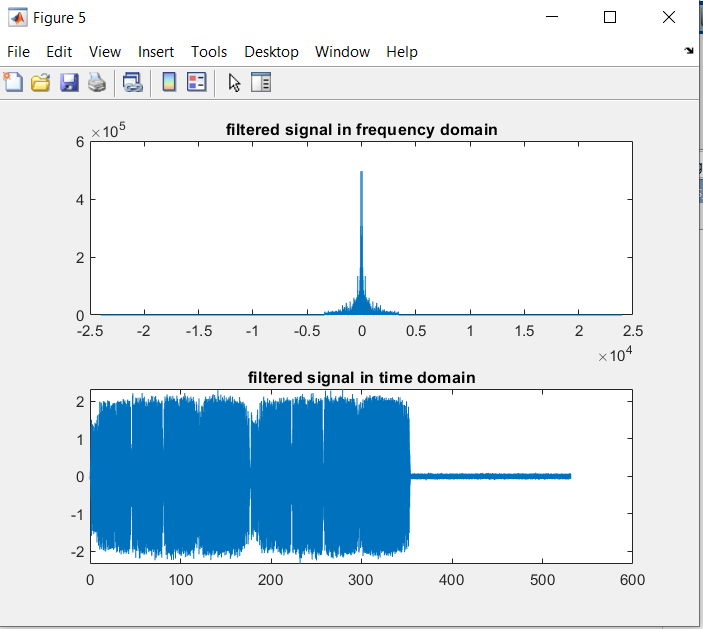
Fourth Channel:

A screenshot of a computer

Description automatically generated with medium confidence

A screenshot of a computer screen

Description automatically generated with medium confidence



Comment:

After comparing sound and music, it became clear that the sound was not affected much, and it largely preserved the information it contains, and it can be heard clearly to some extent, but in the case of music, and as it is known, music contains many instruments, and if any instrument departs from the specified frequency range It cannot be received theoretically as shown by last graph, but practically what we noticed is that the music appears as if it is not clear and cannot be heard clearly, as if the music is muffled and unclear or some information has been lost, unlike the sound