I/O redirection & piping

Adapted from materials by Dr. Carrier

Matt Benson - Unsplash

Have we seen this before?

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Yes!

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```
sort unsorted.txt > sorted.txt
```

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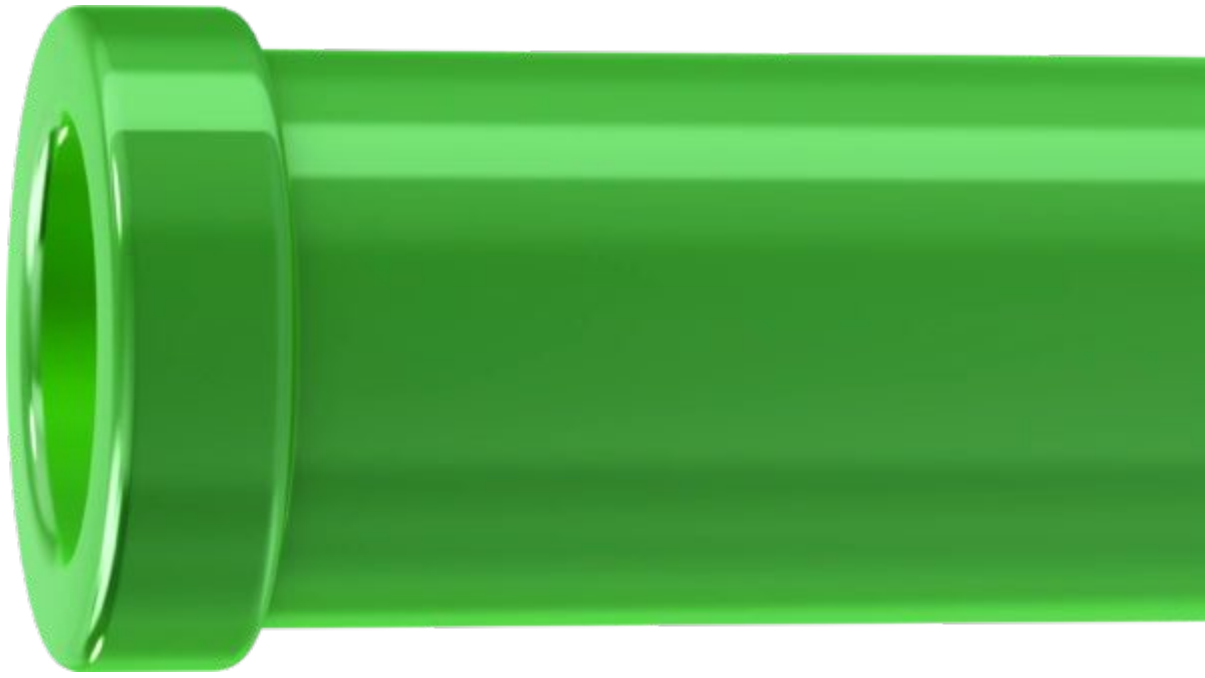
Redirecting a file to stdin:

```
sort < my_file.txt
```

Piping



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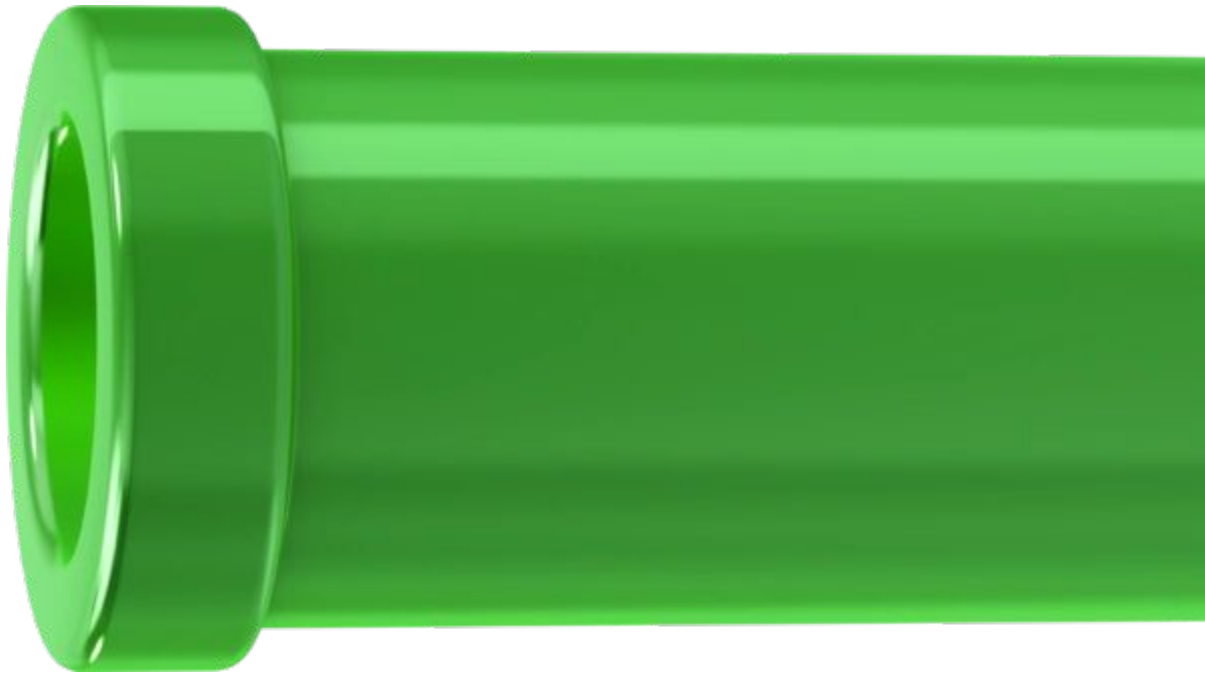

We want to prevent this situation:

```
command1 > temp_file.txt
command2 temp_file.txt
```

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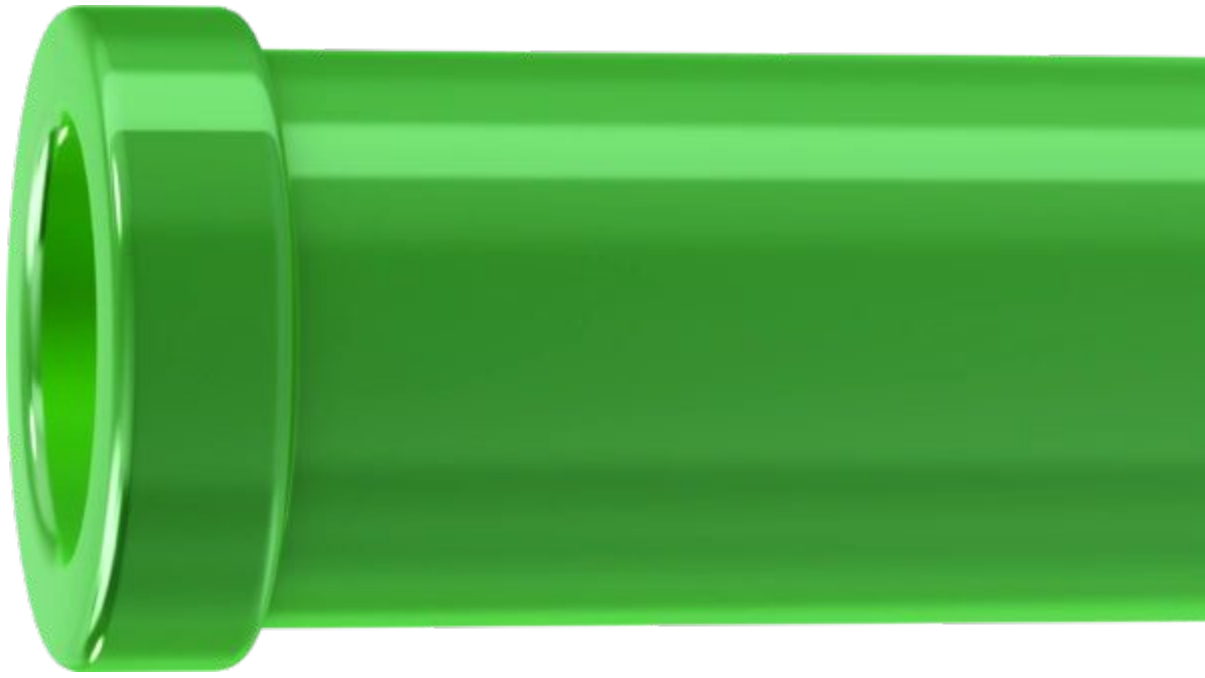

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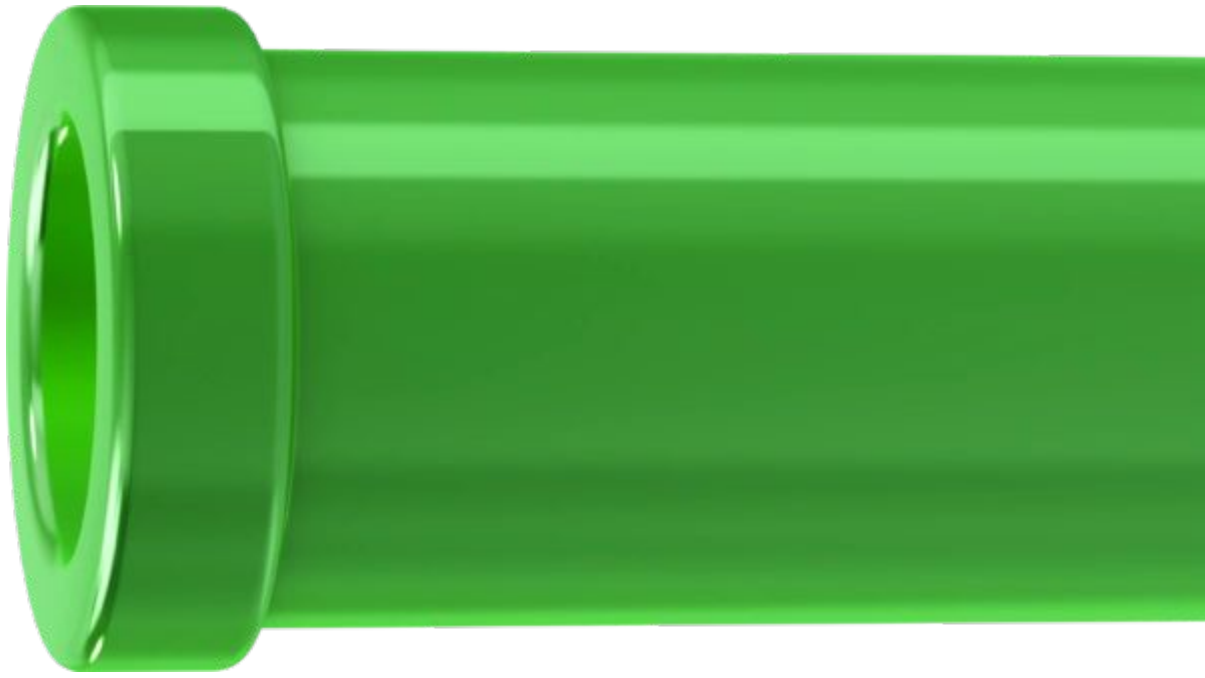

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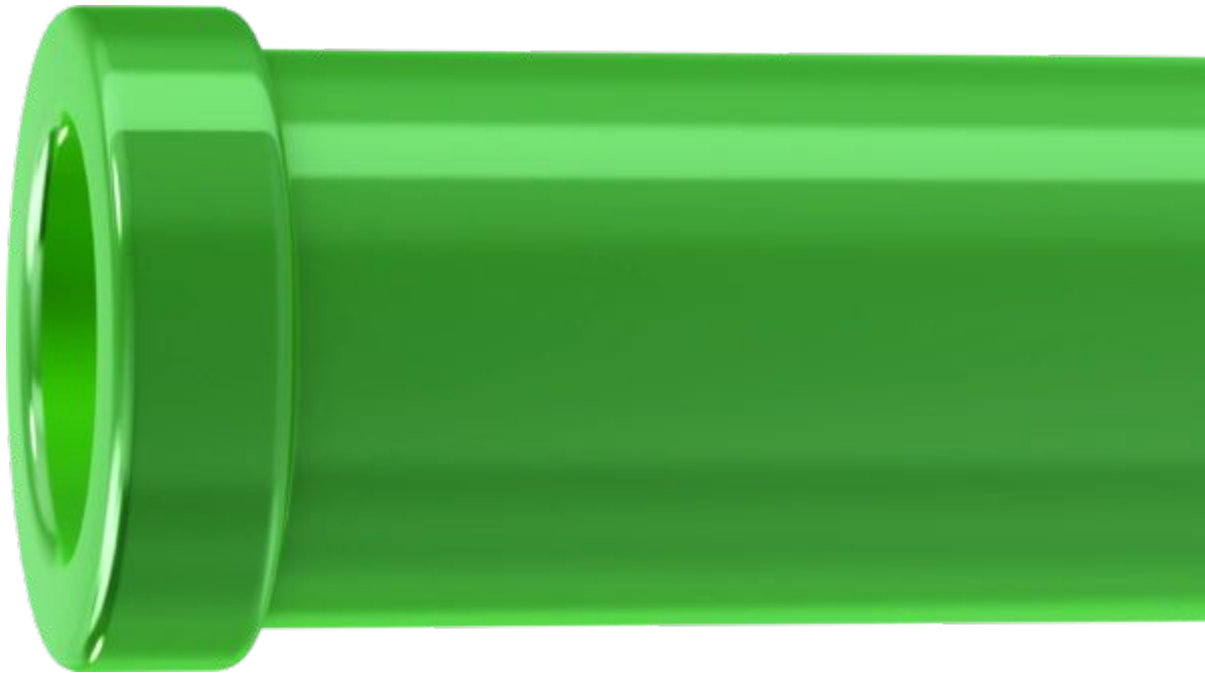

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cat file | sort
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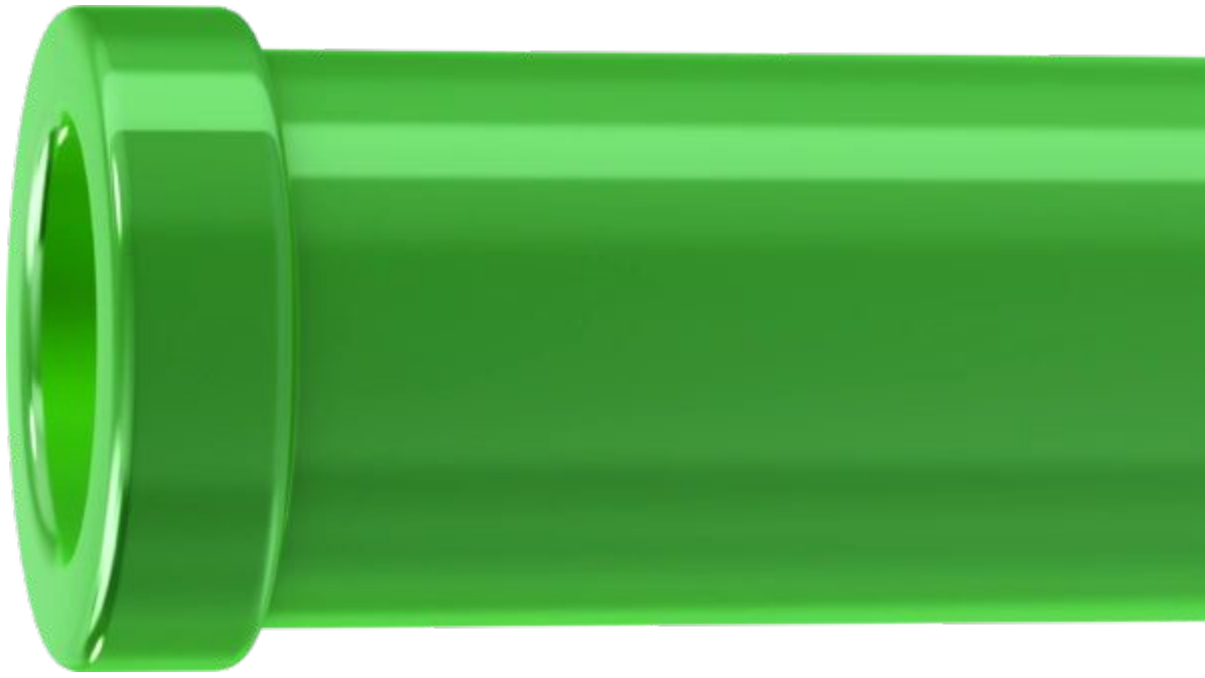

We can have however many pipes we need:

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command1 | command2 | command3
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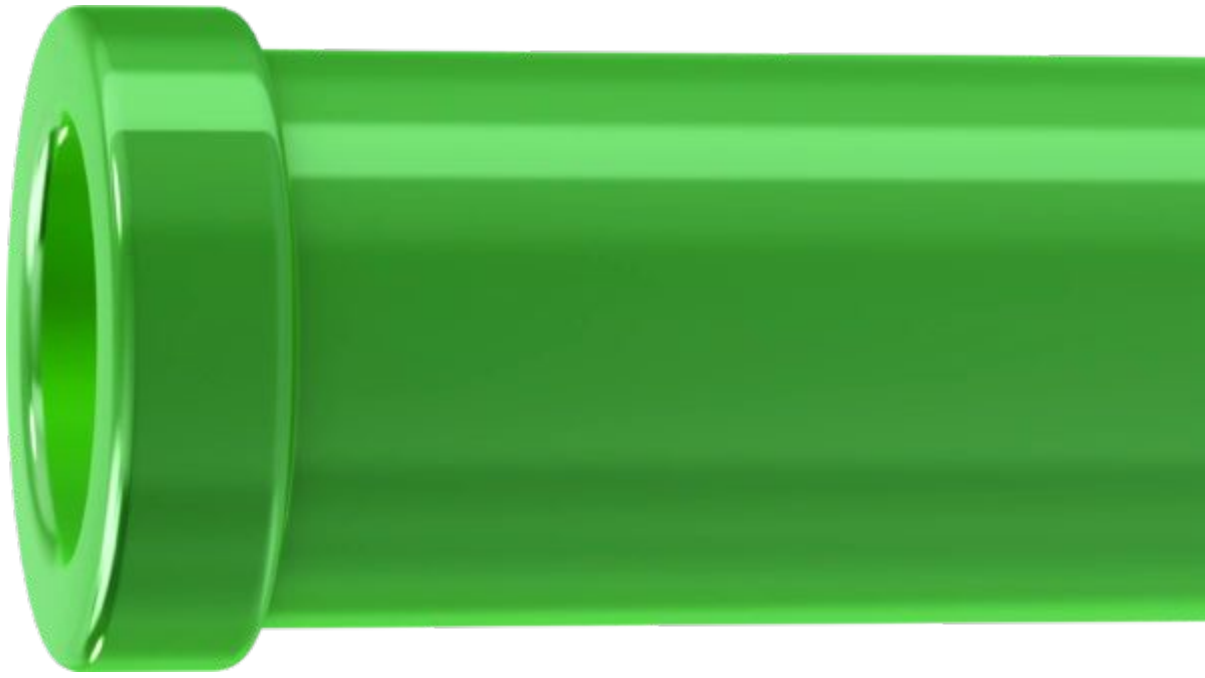

We can have however many pipes we need:

```
command1 | command2 | command3
cat file | sort | uniq
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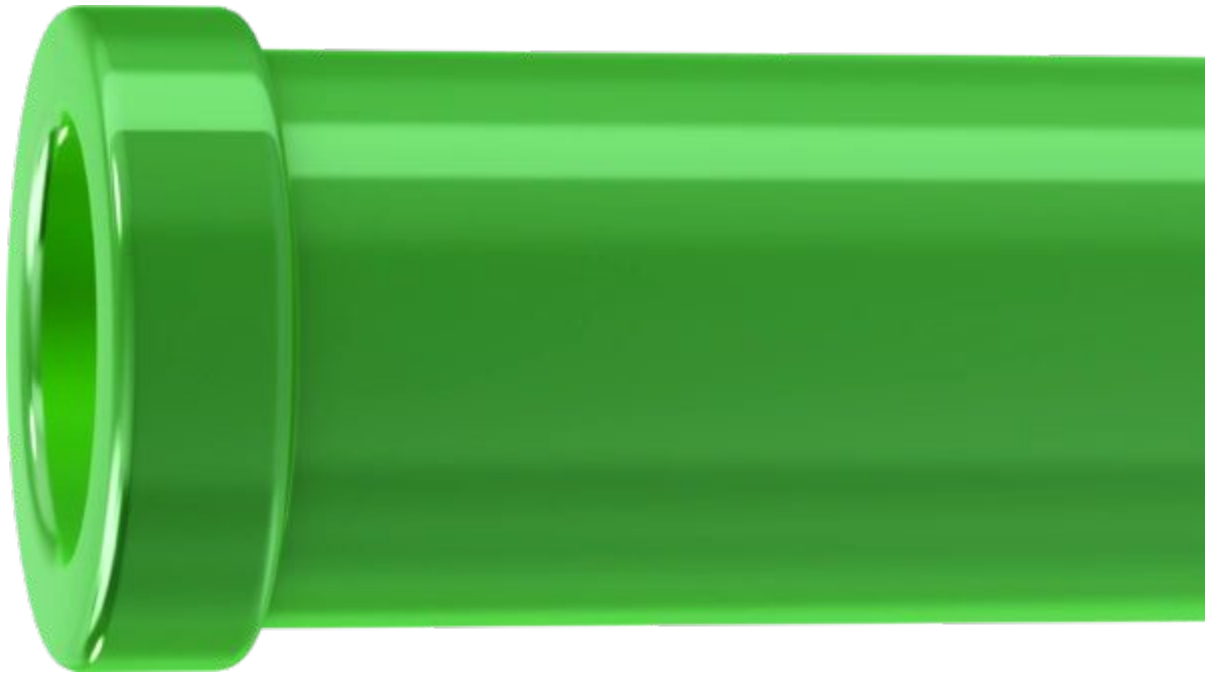

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cat file | sort | uniq
```

We can also combine with I/O redirection

```
cat file | sort | uniq > result.txt
```

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command1 && command2
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This does not care if command1 succeeds

```
command1 && command2
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This only executes command2 if command1 succeeded!

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This only executes command2 if command1 succeeded!

This is different from:

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command1 &
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This does not care if command1 succeeds

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command1 && command2
```

This only executes command2 if command1 succeeded!

This is different from:

```
command1 &
```

This runs it in the background