

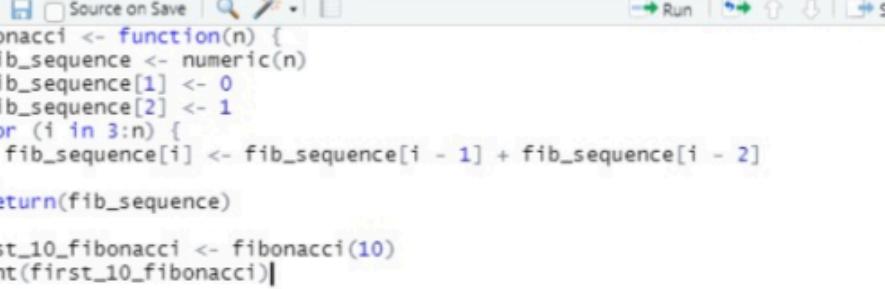
The screenshot shows the RStudio interface with the following components:

- Script Editor:** Displays an R script titled "Untitled1" containing a function to generate prime numbers using the Sieve of Eratosthenes.
- Console:** Shows the output of running the script, including the generated prime numbers from 2 to 97.
- File Browser:** Shows a list of files in the current directory, including RData, Rhistory, and several documents and templates.

```
1 sieve_of_eratosthenes <- function(n) {  
2   primes <- rep(TRUE, n)  
3   primes[1] <- FALSE  
4   for (i in 2:sqrt(n)) {  
5     if (primes[i]) {  
6       primes[seq(i^2, n, by = i)] <- FALSE  
7     }  
8   }  
9   return(which(primes))  
10 }]  
11 # Example usage  
12 n <- 100  
13 prime_numbers <- sieve_of_eratosthenes(n)  
14 print(prime_numbers)  
15  
16 [1] 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```



Edit with WPS Office



The screenshot shows the RStudio interface with the following details:

- Top Bar:** Contains icons for file operations like Open, Save, and Print, followed by "Go to file/function" and "Addins".
- Tab Bar:** Shows three tabs: "Untitled1*" (active), "Untitled1*", and "Untitled1*".
- Toolbar:** Includes "Source on Save", a search icon, a comment icon, and a run icon.
- Script Editor:** Displays the following R code:

```
1 fibonacci <- function(n) {
2   fib_sequence <- numeric(n)
3   fib_sequence[1] <- 0
4   fib_sequence[2] <- 1
5   for (i in 3:n) {
6     fib_sequence[i] <- fib_sequence[i - 1] + fib_sequence[i - 2]
7   }
8   return(fib_sequence)
9 }
10 first_10_fibonacci <- fibonacci(10)
11 print(first_10_fibonacci)
```
- Status Bar:** Shows the time "11:26" and the text "(Top Level) ⚡".
- Bottom Navigation:** Includes tabs for "Console", "Terminal", and "Jobs", along with the R version "R 4.4.2".

Environment History Connections

Files Plots Packages Help Viewer

	Name	Size	Modified
<input type="checkbox"/>	.RData	2.9 KB	Jan 30, 2025, 12:08 PM
<input type="checkbox"/>	.Rhistory	1.2 KB	Feb 12, 2025, 4:20 PM
<input type="checkbox"/>	16 BIT Addition.asm	59 B	May 13, 2024, 10:16 AM
<input type="checkbox"/>	16 BIT substration.asm	59 B	May 13, 2024, 10:22 AM
<input type="checkbox"/>	192325036 K.Hema Sai Siddartha.docx	752.1 KB	Aug 22, 2024, 8:36 AM
<input type="checkbox"/>	192325036.pdf	239.3 KB	Nov 9, 2024, 2:41 PM
<input type="checkbox"/>	Alice3		
<input type="checkbox"/>	bus topology.pkt	55.8 KB	May 9, 2024, 10:40 PM
<input type="checkbox"/>	Custom Office Templates		
<input type="checkbox"/>	Database-Optimization.pdf	2.6 MB	Aug 7, 2024, 9:30 AM
<input type="checkbox"/>	desktop.ini	402 B	Oct 21, 2023, 4:52 PM
<input type="checkbox"/>	dynamic cn.pkt	52.4 KB	May 7, 2024, 10:29 PM
<input type="checkbox"/>	full adder.circ	3.7 KB	May 6, 2024, 10:16 AM
<input type="checkbox"/>	half adder.circ	3 KB	May 6, 2024, 9:52 AM



Edit with WPS Office

The screenshot shows the RStudio interface with the following components:

- Code Editor:** Displays an R script named "memory_details.R". The code defines a function `memory_details` that lists memory usage for objects.
- Console:** Shows the command `source("~/active-rstudio-document")` being run, resulting in NULL output.
- File Browser:** Shows a list of files in the current directory, including RData, .Rhistory, and several documents and scripts.

```
1 - memory_details <- function() {  
2   objects <- ls()  
3   details <- sapply(objects, function(x) {  
4     obj <- get(x)  
5     list(  
6       name = x,  
7       type = class(obj),  
8       size = object.size(obj),  
9       length = length(obj)  
10    )  
11  }, simplify = FALSE)  
12  return(do.call(rbind, lapply(details, as.data.frame)))  
13 }  
14 memory_info <- memory_details()  
15 print(memory_info)
```

```
R 4.4.2 · ~/active-rstudio-document  
> source("~/active-rstudio-document")  
NULL  
>
```

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Edit with WPS Office

The screenshot shows the RStudio IDE interface. The top-left pane contains three tabs: "Untitled1*", "Untitled1*", and "Untitled1*". The "Untitled1*" tab displays R code:

```
1 sequence_20_to_50 <- 20:50
2 mean_20_to_60 <- mean(20:60)
3 sum_51_to_91 <- sum(51:91)
4 cat("Sequence from 20 to 50:", sequence_20_to_50, "\n")
5 cat("Mean of numbers from 20 to 60:", mean_20_to_60, "\n")
6 cat("Sum of numbers from 51 to 91:", sum_51_to_91, "\n")
```

The top-right pane shows the "Environment" tab with the following R code:

```
cat("R Version:", R.version$version.string, "\n")
13
cat("R Version:", R.version$version.string, "\n")
cat("R Version:", R.version$version.string, "\n")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
```

The bottom-left pane shows the "Console" tab with the following R session output:

```
R 4.4.2 . ~/🔗
> source("~/active-rstudio-document")
> source("~/active-rstudio-document")
> source("~/active-rstudio-document")
Sequence from 20 to 50: 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41
42 43 44 45 46 47 48 49 50
Mean of numbers from 20 to 60: 40
Sum of numbers from 51 to 91: 2911
> |
```

The bottom-right pane shows the "Files" tab with a file browser view of the current directory:

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<input type="checkbox"/>	.RData	2.9 KB	Jan 30, 2025, 12:08 PM
<input type="checkbox"/>	.Rhistory	1.2 KB	Feb 12, 2025, 4:20 PM
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<input type="checkbox"/>	16 BIT substration.asm	59 B	May 13, 2024, 10:22 AM
<input checked="" type="checkbox"/>	192325036 K.Hema Sai Siddartha.docx	752.1 KB	Aug 22, 2024, 8:36 AM
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Edit with WPS Office

File Edit Code View Plots Session Build Debug Profile Tools Help

Untitled1* Untitled1* Untitled1*

Source on Save Run Source

```
1 name <- readline(prompt = "Enter your name: ")
2 age <- as.integer(readline(prompt = "Enter your age: "))
3 cat("Name:", name, "\n")
4 cat("Age:", age, "\n")
5 cat("R Version:", R.version$version.string, "\n")
6
7
```

To Console To Source

```
> source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
}
student_scores <- cbind(math,science,english)
cat("R Version:", R.version$version.string, "\n")
cat("R Version:", R.version$version.string, "\n")
13
cat("R Version:", R.version$version.string, "\n")
cat("R Version:", R.version$version.string, "\n")
source("~/active-rstudio-document")
```

Environment History Connections Tutorial

Files Plots Packages Help Viewer

New Folder New Blank File Delete Rename More

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R 4.4.2 - ~/ ◊

```
> source("~/active-rstudio-document")
Enter your name: K.Hema sai siddartha
Enter your age: 18
Name: K.Hema sai siddartha
Age: 18
R Version: R version 4.4.2 (2024-10-31 ucrt)
>
```



Edit with WPS Office

File Edit Code View Plots Session Build Debug Profile Tools Help

Untitled1* Untitled1* Untitled1* Go to file/function Addins

Project: (None)

Source on Save | Run | Source |

Go back to the previous source location (Ctrl+F9) 123) # Setting seed for reproducibility

ctor <- sample(-50:50, 10, replace = TRUE)

dom_vector

4 |

4:1 (Top Level) R Script

Console Terminal Jobs

R 4.4.2 · ~/

> source("~/active-rstudio-document")

[1] -20 28 0 -37 16 -9 -1 -8 50 -37

>

Environment History Connections Tutorial

To Console To Source

cat("R version:", R.version\$version.string, "\n")
cat("R Version:", R.version\$version.string, "\n")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")

Files Plots Packages Help Viewer

New Folder New Blank File Delete Rename More

Home

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Edit with WPS Office

File Edit Code View Plots Session Build Debug Profile Tools Help

Untitled1* Untitled1* Untitled1* Go to file/function Addins Project: (None)

Source on Save Run Source

```
1 # Define the vector
2 my_vector <- c(3, 5, 1, 8, 2, 7)
3
4 # Find the maximum value
5 max_value <- max(my_vector)
6
7 # Find the minimum value
8 min_value <- min(my_vector)
9
10 # Print the results
11 cat("Maximum value:", max_value, "\n")
12 cat("Minimum value:", min_value, "\n")
13
```

13:1 (Top Level) R Script

Console Terminal Jobs

R 4.4.2 - ~/>
> source("~/active-rstudio-document")
Maximum value: 8
Minimum value: 1
> |

Environment History Connections Tutorial

To Console To Source

```
source("~/active-rstudio-document")
```

Files Plots Packages Help Viewer

New Folder New Blank File Delete Rename More

Home

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Edit with WPS Office

File Edit Code View Plots Session Build Debug Profile Tools Help

Untitled1* Untitled1* Untitled1* Go to file/function Addins Project: (None)

```
1 - find_factors <- function(n) {  
2   factors <- c()  
3   for (i in 1:n) {  
4     if (n %% i == 0) {  
5       factors <- c(factors, i)  
6     }  
7   }  
8   return(factors)  
9 }  
10  
11 # Example usage  
12 number <- 28  
13 factors_of_number <- find_factors(number)  
14 print(factors_of_number)  
15
```

15:1 (Top Level) R Script

Console Terminal Jobs

R 4.4.2 ~/>
> source("~/active-rstudio-document")
[1] 1 2 4 7 14 28
>

Environment History Connections Tutorial

To Console To Source

source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")

Files Plots Packages Help Viewer

New Folder + New Blank File Delete Rename More

Home

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Edit with WPS Office

The screenshot shows the RStudio interface with the following components:

- Code Editor:** Displays an R script with code to print lowercase, uppercase, and specific ranges of the alphabet.
- Environment Tab:** Shows the history of source code execution.
- Console:** Displays the output of the R script execution.
- File Browser:** Shows a list of files in the current directory.

Code Editor Content:

```
1 alphabet <- letters # Lowercase letters
2 upper_alphabet <- LETTERS # Uppercase letters
3 first_10_lower <- alphabet[1:10]
4 last_10_upper <- upper_alphabet[(length(upper_alphabet)-9):length(upper_alphabet)]
5 letters_22_to_24_upper <- toupper(upper_alphabet[22:24])
6 cat("First 10 lowercase letters:", paste(first_10_lower, collapse = ""), "\n")
7 cat("Last 10 uppercase letters:", paste(last_10_upper, collapse = ""), "\n")
8 cat("Letters from 22nd to 24th in uppercase:", paste(letters_22_to_24_upper, collapse = ""))
```

Console Output:

```
R 4.4.2 - ~/active-rstudio-document
> source("~/active-rstudio-document")
First 10 lowercase letters: abcdefghij
Last 10 uppercase letters: QRSTUVWXYZ
Letters from 22nd to 24th in uppercase: VWX
>
```

File Browser Content:

Name	Size	Modified
.RData	2.9 KB	Jan 30, 2025, 12:08 PM
.Rhistory	1.2 KB	Feb 12, 2025, 4:20 PM
16 BIT Addition.asm	59 B	May 13, 2024, 10:16 AM
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Edit with WPS Office

Edit Code View Plots Session Build Debug Profile Tools Help

Untitled1* Untitled1* Untitled1*

Source on Save Run Source Environment History Connections Tutorial

Project: (None)

```
1 for (i in 1:100) {  
2   if (i %% 3 == 0 && i %% 5 == 0) {  
3     print("FizzBuzz")  
4   } else if (i %% 3 == 0) {  
5     print("Fizz")  
6   } else if (i %% 5 == 0) {  
7     print("Buzz")  
8   } else {  
9     print(i)  
10  }  
11 }
```

1:2 (Top Level) R Script

Console Terminal Jobs

```
R 4.4.2 · ~/  
↳ "Fizz"  
] "Buzz"  
] 86  
] "Fizz"  
] 88  
] 89  
] "FizzBuzz"  
] 91  
] 92  
] "Fizz"  
] 94  
] "Buzz"  
] "Fizz"  
] 97  
] 98  
] "Fizz"  
] "Buzz"
```

To Console To Source

source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")
source("~/active-rstudio-document")

Files Plots Packages Help Viewer

New Folder New Blank File Delete Rename More

Home

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