

1) Git Kurulumu

1.1) Öncelikle Git'i kuralım. Sudo apt-get install git komutu ile Git'i kurabiliriz.

```
debian@db: ~  
debian@db:~$ sudo apt-get install git
```

1.2) git --version komutu ile Git versiyonumuzu öğrenelim.

```
debian@db:~$ git --version  
git version 2.30.2  
debian@db:~$
```

2) VSCode Kurulumu

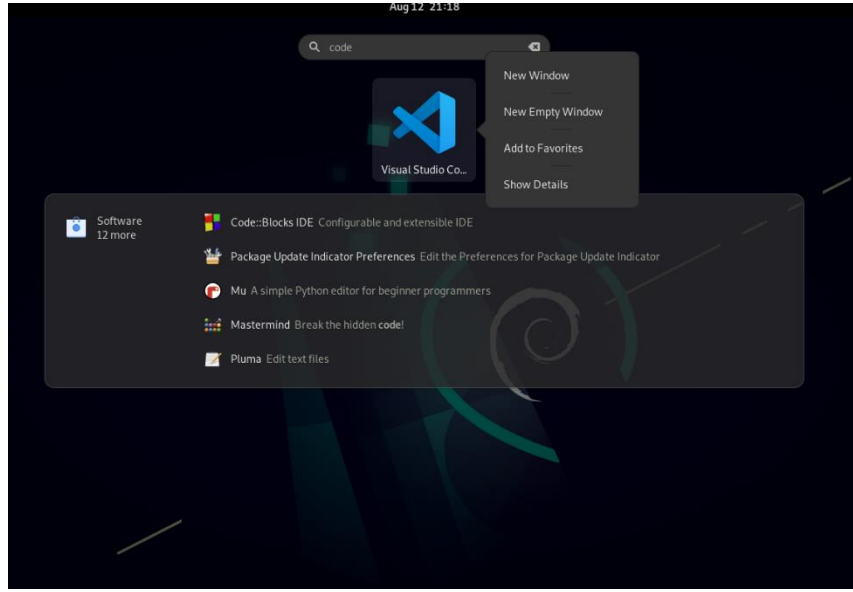
2.1) Ekran görüntüsündeki kodları teker teker terminalimize yazıyoruz ve paketleri indiriyoruz.

```
sudo apt-get install wget gpg  
wget -qO- https://packages.microsoft.com/keys/microsoft.asc | gpg --dearmor > packages.micros  
oft.gpg  
sudo install -D -o root -g root -m 644 packages.microsoft.gpg /etc/apt/keyrings/packages.micr  
osoft.gpg  
sudo sh -c 'echo "deb [arch=amd64,arm64,armhf signed-by=/etc/apt/keyrings/packages.microsoft.  
gpg] https://packages.microsoft.com/repos/code stable main" > /etc/apt/sources.list.d/vscode.  
list'  
rm -f packages.microsoft.gpg
```

Then update the package cache and install the package using:

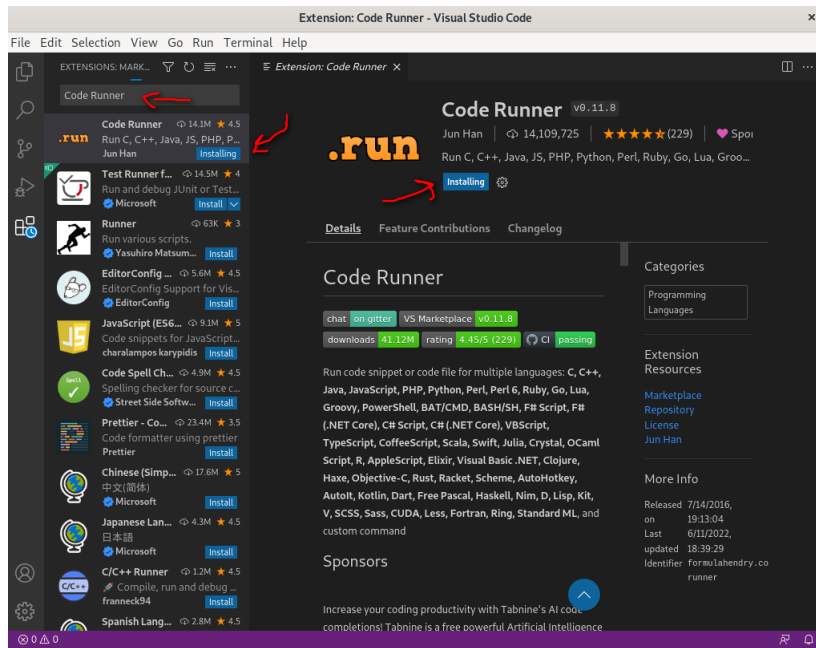
```
sudo apt install apt-transport-https  
sudo apt update  
sudo apt install code # or code-insiders
```

2.2) Applications kismindan arama cubuguna Code yazdiktan sonra VSCode' u favoriler kismimize ekliyoruz.

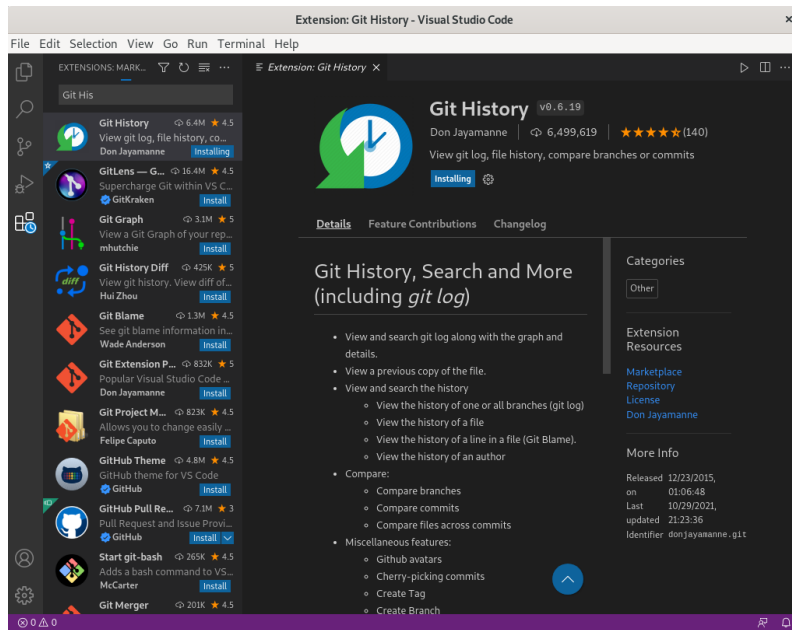


3) VSCode Eklentileri Kurulur

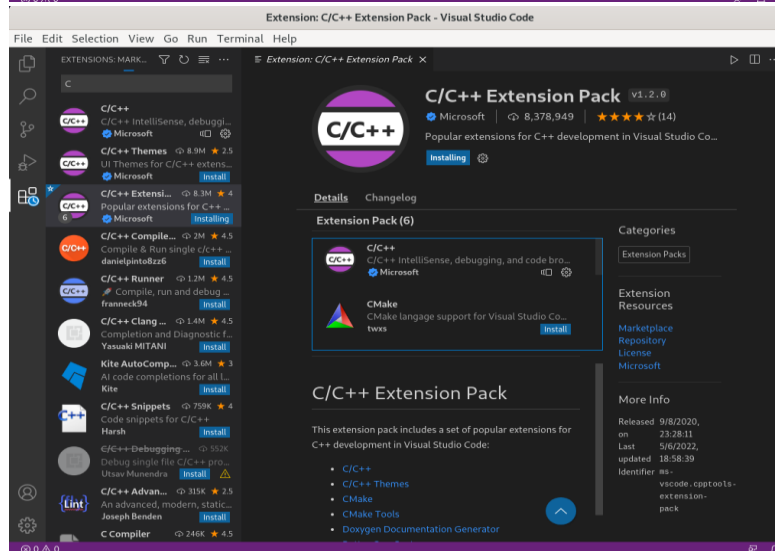
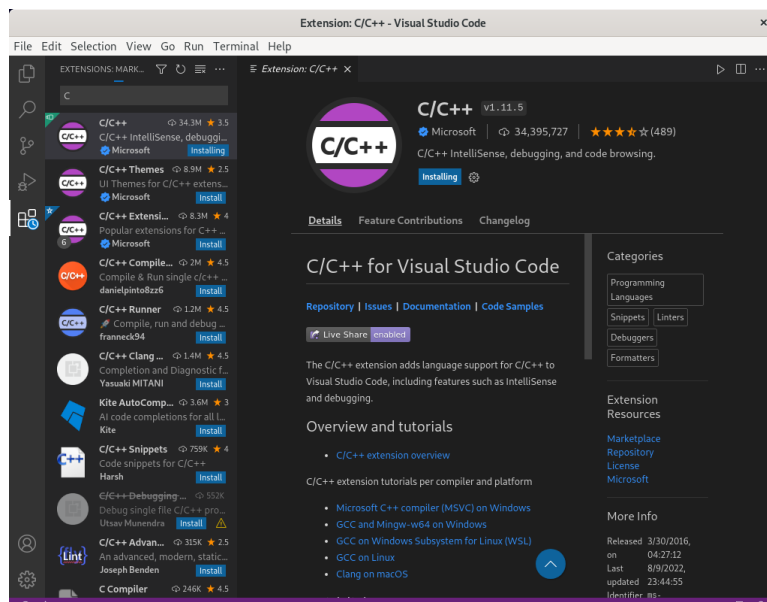
3.1) Coderunner eklentisi ile kodlarimizi kolay bir sekilde calistirabiliriz. VSCode' da Extensions kismindan bu eklenti indirilir.



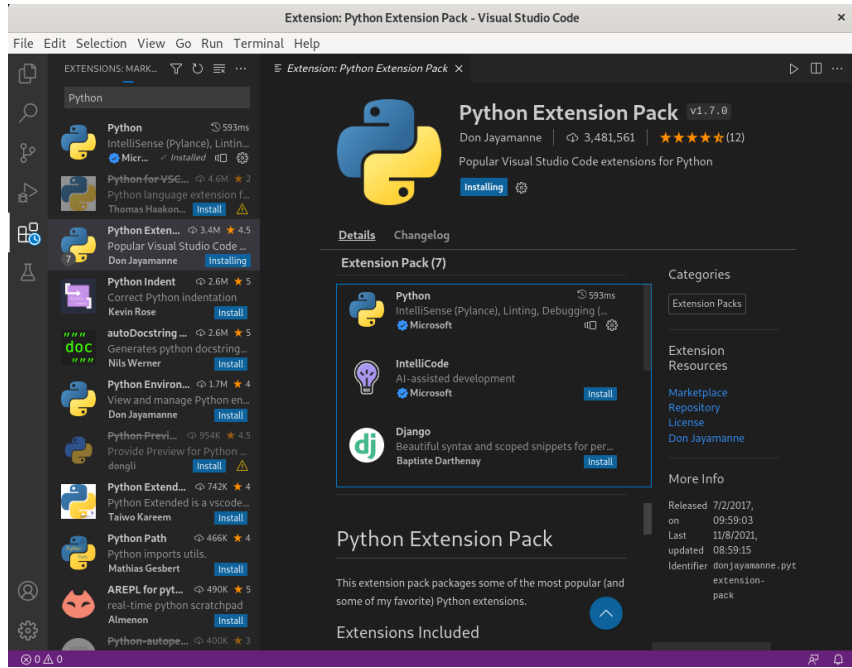
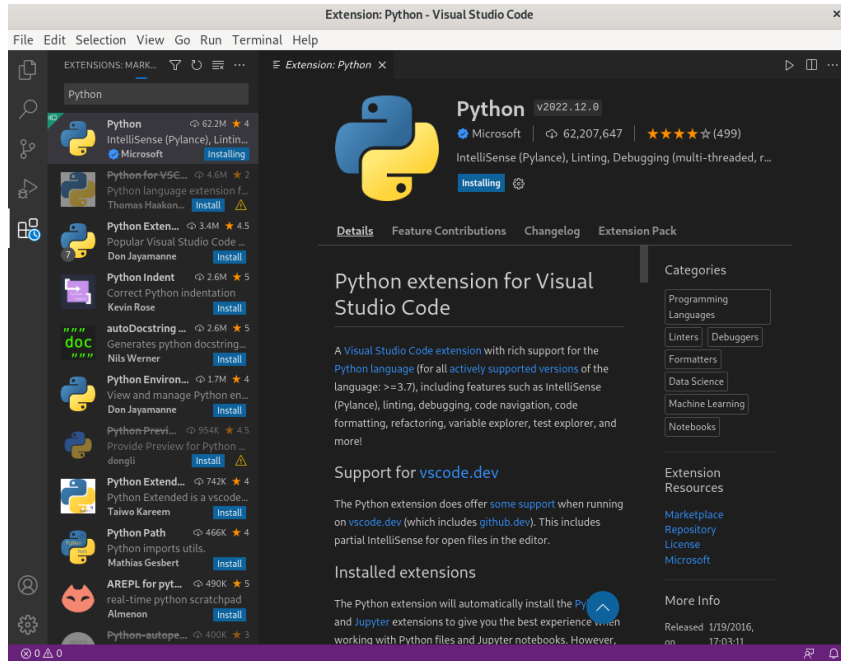
3.2) Git history eklentisi git uygulamalarindaki detaylara erismemizi saglar.



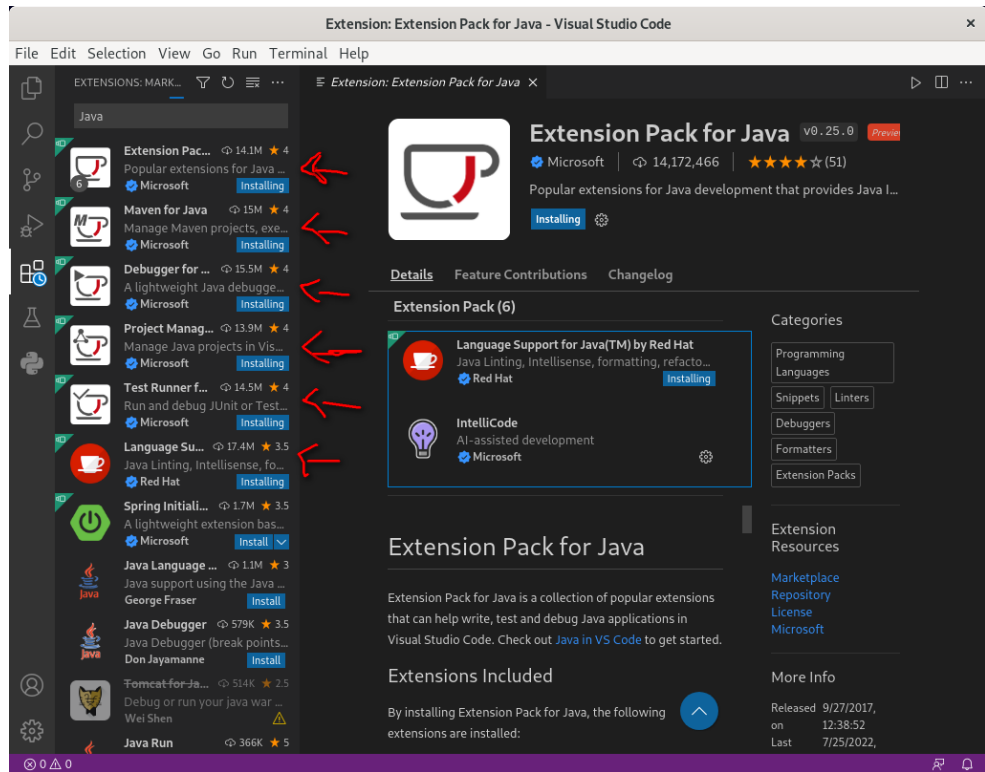
3.3) C/C++ ve C/C++ Extensions pack eklentilerini kuralım.



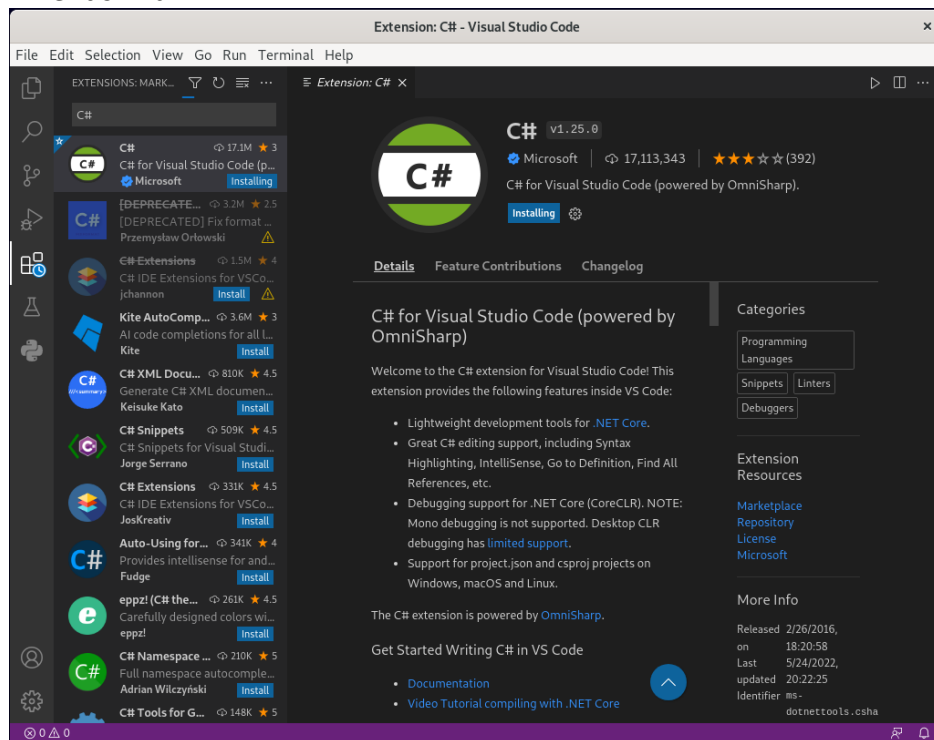
3.4) Python ve Python Extensions pack eklentilerini kuralım.



3.5) Java kullanımı için Language Support for Java(TM) by Red Hat, Debugger for Java, Extension Pack for Java, Maven for Java ve Test Runner for Java eklentileri kurulur.



3.6) C# Eklentisi indirilir.



4) VSCODE C/C++ Destegi Verilmesi

4.1) gcc, g++ ve gdb Kurulumlari.

```
debian@db: ~  
debian@db:~$ sudo apt-get -y install gdb  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
gdb is already the newest version (10.1-1.7).  
0 upgraded, 0 newly installed, 0 to remove and 18 not upgraded.  
debian@db:~$ sudo apt-get -y install gcc  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
gcc is already the newest version (4:10.2.1-1).  
gcc set to manually installed.  
0 upgraded, 0 newly installed, 0 to remove and 18 not upgraded.  
debian@db:~$ sudo apt-get -y install g++  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
g++ is already the newest version (4:10.2.1-1).  
g++ set to manually installed.  
0 upgraded, 0 newly installed, 0 to remove and 18 not upgraded.  
debian@db:~$ █
```

```
debian@db: ~  
debian@db:~$ gcc --version  
gcc (Debian 10.2.1-6) 10.2.1 20210110  
Copyright (C) 2020 Free Software Foundation, Inc.  
This is free software; see the source for copying conditions. There is NO  
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  
  
debian@db:~$ g++ --version  
g++ (Debian 10.2.1-6) 10.2.1 20210110  
Copyright (C) 2020 Free Software Foundation, Inc.  
This is free software; see the source for copying conditions. There is NO  
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  
  
debian@db:~$ gdb --version  
GNU gdb (Debian 10.1-1.7) 10.1.90.20210103-git  
Copyright (C) 2021 Free Software Foundation, Inc.  
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>  
This is free software; you are free to change and redistribute it.  
There is NO WARRANTY, to the extent permitted by law.  
debian@db:~$
```

```
debian@db: ~/Projects/C++/Test  
debian@db:~$ pwd  
/home/debian  
debian@db:~$ mkdir -p Projects/C++/Test  
debian@db:~$ cd Projects/C++/Test/  
debian@db:~/Projects/C++/Test$ touch hello.cpp  
debian@db:~/Projects/C++/Test$ code .
```

hello.cpp - Test - Visual Studio Code

```
File Edit Selection View Go Run Terminal Help
```

EXPLORER

- TEST
 - hello.cpp

```
hello.cpp > main()
1 #include <iostream>
2
3 using namespace std;
4
5 int main()
6 {
7     cout<<"Hello, World!";
8     return 0;
9 }
```

Ln 7, Col 14 Spaces: 4 UTF-8 LF C++ Linux

```
debian@db:~/Projects/C++/Test$ g++ -Wall hello.cpp -o hello
debian@db:~/Projects/C++/Test$ ./hello
Hello, World!debian@db:~/Projects/C++/Test$
```

hello.cpp - Test - Visual Studio Code

```
File Edit Selection View Go Run Terminal Help
```

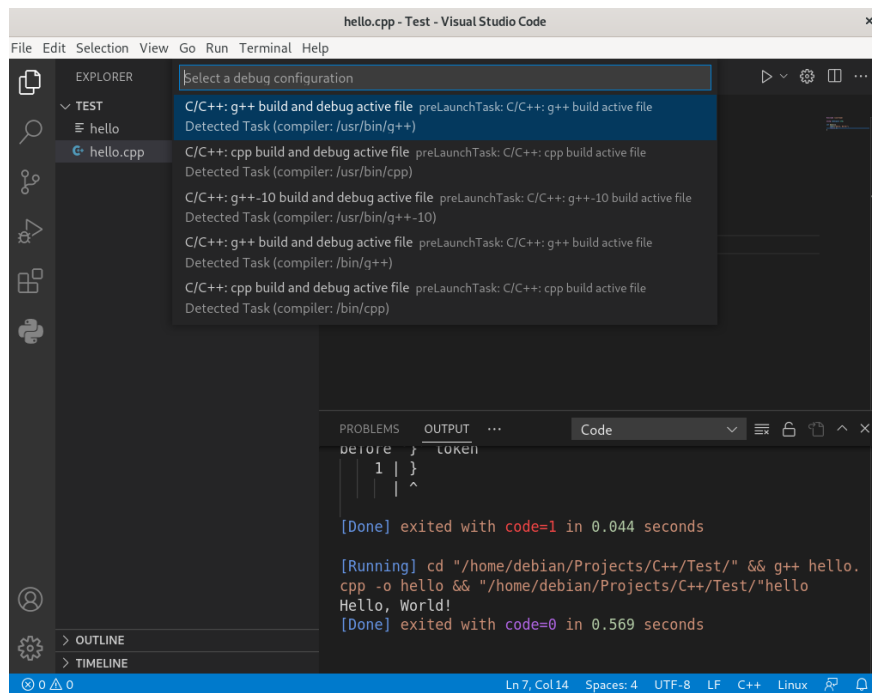
EXPLORER

- TEST
 - hello
 - hello.cpp

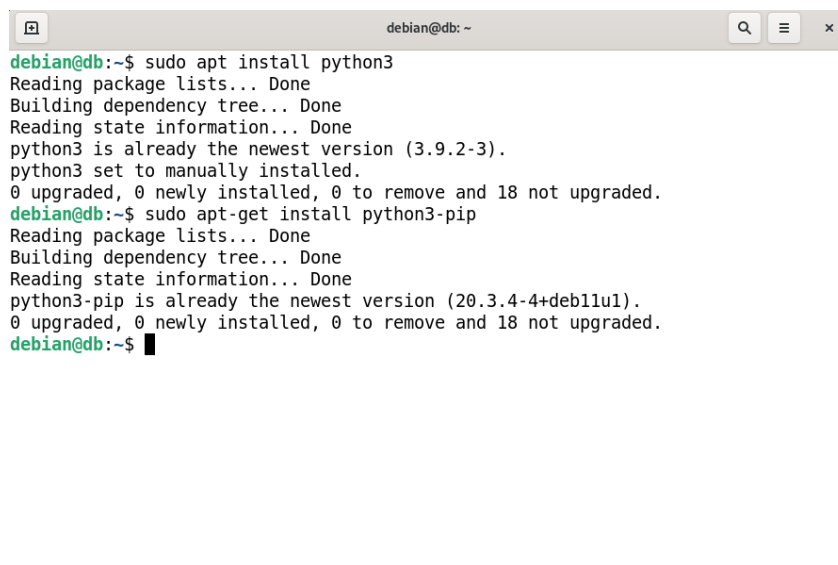
```
hello.cpp > main()
1 #include <iostream>
2
3 using namespace std;
4
5 int main(){
6     cout<<"Hello, World!";
7     return 0;
8 }
```

Ln 8, Col 2 (1 selected) Spaces: 4 UTF-8 LF C++ Linux

- Debug C/C++ f
- Run Code
- Run C/C++ File



5) Python Kurulumlari




```
debian@db: ~/Projects/Python/Test
debian@db:~$ pwd
/home/debian
debian@db:~$ mkdir -p Projects/Python/Test
debian@db:~$ cd Projects/Python/Test/
debian@db:~/Projects/Python/Test$ touch main.py
debian@db:~/Projects/Python/Test$ code .
```

```
main.py - Test - Visual Studio Code
File Edit Selection View Go Run Terminal Help
EXPLORER
TEST
main.py
main.py
1 import platform
2
3 print("Hello, World!")
4
5 print(['Python Version' + platform.python_version()])
Run Code
Run Python File
Debug Python File
Ln 5, Col 52 Spaces: 4 UTF-8 LF Python 3.9.2 64-bit
```

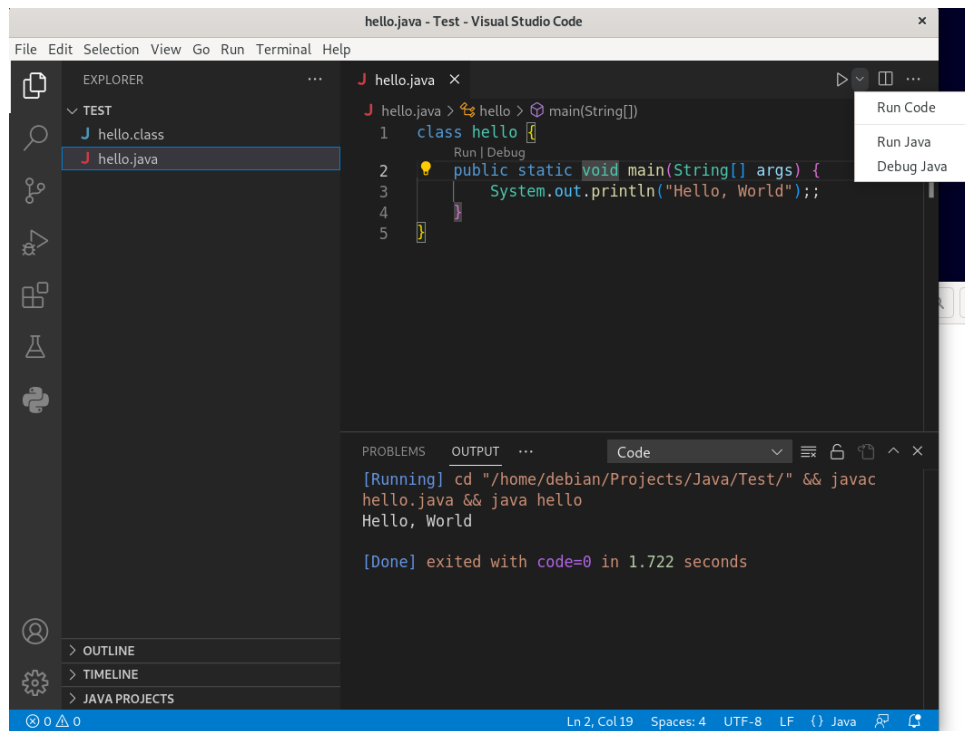
6) Java Kurulumlari

```
# Install openJDK JDK 17
sudo apt install openjdk-17-jdk
```

```
debian@db:~$ java -version
openjdk version "17.0.4" 2022-07-19
OpenJDK Runtime Environment (build 17.0.4+8-Debian-1deb11u1)
OpenJDK 64-Bit Server VM (build 17.0.4+8-Debian-1deb11u1, mixed mode, sharing)
debian@db:~$ javac -version
javac 17.0.4
debian@db:~$
```

```
debian@db:~/Projects/Java/Test$ pwd
/home/debian
debian@db:~/Projects/Java/Test$ mkdir -p Projects/Java/Test
debian@db:~/Projects/Java/Test$ cd Projects/Java/Test/
debian@db:~/Projects/Java/Test$ touch hello.java
debian@db:~/Projects/Java/Test$ code .
debian@db:~/Projects/Java/Test$ javac hello.java
debian@db:~/Projects/Java/Test$ java hello
Hello, World
debian@db:~/Projects/Java/Test$
```

6.1) Run Code'a Basilir.



7) Dotnet Kurulumlari

7.1) Asagidaki kodlar sirasiyla terminale yazilir.

```
1 wget https://packages.microsoft.com/config/debian/11/packages-
  microsoft-prod.deb -O packages-microsoft-prod.deb
2
3 sudo dpkg -i packages-microsoft-prod.deb
4
5 rm packages-microsoft-prod.deb
6
7 sudo apt-get update
8
9 sudo apt-get install -y dotnet-sdk-5.0
```

```
debian@db: ~$ dotnet -version
Unknown option: -version
.NET SDK (5.0.408)
Usage: dotnet [runtime-options] [path-to-application] [arguments]

Execute a .NET application.

runtime-options:
--additionalprobingpath <path> Path containing probing policy and assemblies
to probe for.
--additional-deps <path> Path to additional deps.json file.
--depsfile <path> Path to <application>.deps.json file.
--fx-version <version> Version of the installed Shared Framework to
use to run the application.
--roll-forward <setting> Roll forward to framework version (LatestPat
ch, Minor, LatestMinor, Major, LatestMajor, Disable).
--runtimeconfig <path> Path to <application>.runtimeconfig.json file
.

path-to-application:
The path to an application .dll file to execute.

Usage: dotnet [sdk-options] [command] [command-options] [arguments]
```

```
debian@db: ~/Projects/C#/Test
debian@db:~$ pwd
/home/debian
debian@db:~$ mkdir -p Projects/C#/Test
debian@db:~$ cd Projects/C
C#/ C++/
debian@db:~$ cd Projects/C
C#/ C++/
debian@db:~$ cd Projects/C#/Test
debian@db:~/Projects/C#/Test$ dotnet new console

Welcome to .NET 5.0!
-----
SDK Version: 5.0.408

Telemetry
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The .NET tools collect usage data in order to help us improve your experience. It is collected by Microsoft and shared with the community. You can opt-out of telemetry by setting the DOTNET_CLI_TELEMETRY_OPTOUT environment variable to '1' or 'true' using your favorite shell.

Read more about .NET CLI Tools telemetry: https://aka.ms/dotnet-cli-telemetry

-----
```

```
debian@db: ~/Projects/C#/Test
-----
Installed an ASP.NET Core HTTPS development certificate.
To trust the certificate run 'dotnet dev-certs https --trust' (Windows and macOS only).
Learn about HTTPS: https://aka.ms/dotnet-https
-----
Write your first app: https://aka.ms/dotnet-hello-world
Find out what's new: https://aka.ms/dotnet-whats-new
Explore documentation: https://aka.ms/dotnet-docs
Report issues and find source on GitHub: https://github.com/dotnet/core
Use 'dotnet --help' to see available commands or visit: https://aka.ms/dotnet-cli
-----
Getting ready...
The template "Console Application" was created successfully.

Processing post-creation actions...
Running 'dotnet restore' on /home/debian/Projects/C#/Test/Test.csproj...
  Determining projects to restore...
  Restored /home/debian/Projects/C#/Test/Test.csproj (in 120 ms).
Restore succeeded.

debian@db:~/Projects/C#/Test$ code .
```

The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'TEST' with subfolders 'obj' and 'Program.cs', and a file 'Test.csproj'. The main editor window displays the code for 'Program.cs' with the following content:

```
1 using System;
2
3 namespace Test
4 {
5     class Program
6     {
7         static void Main(string[] args)
8         {
9             Console.WriteLine("Hello World!");
10        }
11    }
12 }
13
```

The status bar at the bottom indicates 'Ln 1, Col 1', 'Spaces: 4', 'UTF-8 with BOM', 'CRLF', and 'C#'.

The screenshot shows a terminal window with the following text:

```
debian@db: ~/Projects/C#/Test
debian@db:~/Projects/C#/Test$ dotnet run
Hello World!
debian@db:~/Projects/C#/Test$
```