REST - Country Web Service

CountryController.java

```
package com.cognizant.spring_learn.controller;

import com.cognizant.spring_learn.Country;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RestController;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@RestController

public class CountryController {

    @RequestMapping("/country")

    public Country getCountryIndia() {

        ApplicationContext context = new
ClassPathXmlApplicationContext("country.xml");

        Country country = context.getBean("country", Country.class);

        return country;

    }

}
```

Pom.xml:

```
<?xml version="1.0" encoding="UTF-8"?>

<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

         xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
https://maven.apache.org/xsd/maven-4.0.0.xsd">

         <modelVersion>4.0.0</modelVersion>

         <parent>

                  <groupId>org.springframework.boot</groupId>
```

```xml
        <artifactId>spring-boot-starter-parent</artifactId>
        <version>3.5.3</version>
        <relativePath/> <!-- lookup parent from repository -->
    </parent>
    <groupId>com.cognizant</groupId>
    <artifactId>spring-learn</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>spring-learn</name>
    <description>Demo project for Spring Boot</description>
    <url/>
    <licenses>
        <license/>
    </licenses>
    <developers>
        <developer/>
    </developers>
    <scm>
        <connection/>
        <developerConnection/>
        <tag/>
        <url/>
    </scm>
    <properties>
        <java.version>17</java.version>
    </properties>
    <dependencies>
        <dependency>
```

```
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-web</artifactId>
        </dependency>
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-test</artifactId>
            <scope>test</scope>
        </dependency>
    </dependencies>
    <build>
        <plugins>
            <plugin>
                <groupId>org.springframework.boot</groupId>
                <artifactId>spring-boot-maven-plugin</artifactId>
            </plugin>
        </plugins>
    </build>
</project>
```

Mvnx.txt:

```
set -euf
[ "${MVNW_VERBOSE-}" != debug ] || set -x

# OS specific support.
native_path() { printf %s\\n "$1"; }
case "$(uname)" in
CYGWIN* | MINGW*)
  [ -z "${JAVA_HOME-}" ] || JAVA_HOME="$(cygpath --unix "$JAVA_HOME")"
  native_path() { cygpath --path --windows "$1"; }
  ;;
esac

# set JAVACMD and JAVACCMD
set_java_home() {
  # For Cygwin and MinGW, ensure paths are in Unix format before anything is touched
  if [ -n "${JAVA_HOME-}" ]; then
    if [ -x "$JAVA_HOME/jre/sh/java" ]; then
      # IBM's JDK on AIX uses strange locations for the executables
      JAVACMD="$JAVA_HOME/jre/sh/java"
      JAVACCMD="$JAVA_HOME/jre/sh/javac"
    else
      JAVACMD="$JAVA_HOME/bin/java"
      JAVACCMD="$JAVA_HOME/bin/javac"

      if [ ! -x "$JAVACMD" ] || [ ! -x "$JAVACCMD" ]; then
        echo "The JAVA_HOME environment variable is not defined correctly, so mvnw cannot run." >&2
        echo "JAVA_HOME is set to \"$JAVA_HOME\", but \"\$JAVA_HOME/bin/java\" or \"\$JAVA_HOME/bin/javac\" does not exist." >&2
        return 1
      fi
    fi
  else
    JAVACMD="$(
      'set' +e
      'unset' -f command 2>/dev/null
      'command' -v java
    )" || :
    JAVACCMD="$(
      'set' +e
      'unset' -f command 2>/dev/null
      'command' -v javac
    )" || :

    if [ ! -x "${JAVACMD-}" ] || [ ! -x "${JAVACCMD-}" ]; then
      echo "The java/javac command does not exist in PATH nor is JAVA_HOME set, so mvnw cannot run." >&2
      return 1
    fi
  fi
}

# hash string like Java String::hashCode
hash_string() {
  str="${1:-}" h=0
  while [ -n "$str" ]; do
    char="${str%"${str#?}"}"
    h=$(((h * 31 + $(LC_CTYPE=C printf %d "'$char")) % 4294967296))
    str="${str#?}"
  done
  printf %x\\n $h
}
```

```
verbose() { :; }
[ "${MVNW_VERBOSE-}" != true ] || verbose() { printf %s\\n "${1-}"; }

die() {
  printf %s\\n "$1" >&2
  exit 1
}

trim() {
  # MWRAPPER-139:
  #   Trims trailing and leading whitespace, carriage returns, tabs, and linefeeds.
  #   Needed for removing poorly interpreted newline sequences when running in more
  #   exotic environments such as mingw bash on Windows.
  printf "%s" "${1}" | tr -d '[:space:]'
}

# parse distributionUrl and optional distributionSha256Sum, requires .mvn/wrapper/maven-wrapper.properties
while IFS="=" read -r key value; do
  case "${key-}" in
  distributionUrl) distributionUrl=$(trim "${value-}") ;;
  distributionSha256Sum) distributionSha256Sum=$(trim "${value-}") ;;
  esac
done <"${0%/*}/.mvn/wrapper/maven-wrapper.properties"
[ -n "${distributionUrl-}" ] || die "cannot read distributionUrl property in ${0%/*}/.mvn/wrapper/maven-wrapper.properties"
```

```
case "${distributionUrl##*/}" in
maven-mvnd-*bin.*)
  MVN_CMD=mvnd.sh _MVNW_REPO_PATTERN=/maven/mvnd/
  case "${PROCESSOR_ARCHITECTURE-}${PROCESSOR_ARCHITEW6432-}:$(uname -a)" in
  *AMD64:CYGWIN* | *AMD64:MINGW*) distributionPlatform=windows-amd64 ;;
  :Darwin*x86_64) distributionPlatform=darwin-amd64 ;;
  :Darwin*arm64) distributionPlatform=darwin-aarch64 ;;
  :Linux*x86_64*) distributionPlatform=linux-amd64 ;;
  *)
    echo "Cannot detect native platform for mvnd on $(uname)-$(uname -m), use pure java version" >&2
    distributionPlatform=linux-amd64
    ;;
  esac
  distributionUrl="${distributionUrl%-bin.*}-$distributionPlatform.zip"
  ;;
maven-mvnd-*) MVN_CMD=mvnd.sh _MVNW_REPO_PATTERN=/maven/mvnd/ ;;
*) MVN_CMD="mvn${0##*/mvnw}" _MVNW_REPO_PATTERN=/org/apache/maven/ ;;
esac

# apply MVNW_REPOURL and calculate MAVEN_HOME
# maven home pattern: ~/.m2/wrapper/dists/{apache-maven-<version>,maven-mvnd-<version>-<platform>}/<hash>
[ -z "${MVNW_REPOURL-}" ] || distributionUrl="$MVNW_REPOURL$_MVNW_REPO_PATTERN${distributionUrl#*"$_MVNW_REPO_PATTERN"}"
```

```
distributionUrlName="${distributionUrl##*/}"
distributionUrlNameMain="${distributionUrlName%.*}"
distributionUrlNameMain="${distributionUrlNameMain%-bin}"
MAVEN_USER_HOME="${MAVEN_USER_HOME:-${HOME}/.m2}"
MAVEN_HOME="${MAVEN_USER_HOME}/wrapper/dists/${distributionUrlNameMain-}/$(hash_string "$distributionUrl")"

exec_maven() {
  unset MVNW_VERBOSE MVNW_USERNAME MVNW_PASSWORD MVNW_REPOURL || :
  exec "$MAVEN_HOME/bin/$MVN_CMD" "$@" || die "cannot exec $MAVEN_HOME/bin/$MVN_CMD"
}

if [ -d "$MAVEN_HOME" ]; then
  verbose "found existing MAVEN_HOME at $MAVEN_HOME"
  exec_maven "$@"
fi

case "${distributionUrl-}" in
*?-bin.zip | *?maven-mvnd-?*-?*.zip) ;;
*) die "distributionUrl is not valid, must match *-bin.zip or maven-mvnd-*.zip, but found '${distributionUrl-}'" ;;
esac

# prepare tmp dir
if TMP_DOWNLOAD_DIR="$(mktemp -d)" && [ -d "$TMP_DOWNLOAD_DIR" ]; then
  clean() { rm -rf -- "$TMP_DOWNLOAD_DIR"; }
  trap clean HUP INT TERM EXIT
else
  die "cannot create temp dir"
fi

mkdir -p -- "${MAVEN_HOME%/*}"

# Download and Install Apache Maven
verbose "Couldn't find MAVEN_HOME, downloading and installing it ..."
verbose "Downloading from: $distributionUrl"
verbose "Downloading to: $TMP_DOWNLOAD_DIR/$distributionUrlName"

# select .zip or .tar.gz
if ! command -v unzip >/dev/null; then
  distributionUrl="${distributionUrl%.zip}.tar.gz"
  distributionUrlName="${distributionUrl##*/}"
fi

# verbose opt
__MVNW_QUIET_WGET=--quiet __MVNW_QUIET_CURL=--silent __MVNW_QUIET_UNZIP=-q __MVNW_QUIET_TAR="
[ "${MVNW_VERBOSE-}" != true ] || __MVNW_QUIET_WGET=" __MVNW_QUIET_CURL=" __MVNW_QUIET_UNZIP=" __MVNW_QUIET_TAR=v

# normalize http auth
case "${MVNW_PASSWORD:+has-password}" in
") MVNW_USERNAME=" MVNW_PASSWORD=" ;;
```

```
has-password) [ -n "${MVNW_USERNAME-}" ] || MVNW_USERNAME=" 
MVNW_PASSWORD=" ;;
esac

if [ -z "${MVNW_USERNAME-}" ] && command -v wget >/dev/null; then
  verbose "Found wget ... using wget"
  wget ${__MVNW_QUIET_WGET:+"$__MVNW_QUIET_WGET"} 
"$distributionUrl" -O "$TMP_DOWNLOAD_DIR/$distributionUrlName" || die 
"wget: Failed to fetch $distributionUrl"
elif [ -z "${MVNW_USERNAME-}" ] && command -v curl >/dev/null; then
  verbose "Found curl ... using curl"
  curl ${__MVNW_QUIET_CURL:+"$__MVNW_QUIET_CURL"} -f -L -o 
"$TMP_DOWNLOAD_DIR/$distributionUrlName" "$distributionUrl" || die 
"curl: Failed to fetch $distributionUrl"
elif set_java_home; then
  verbose "Falling back to use Java to download"
  javaSource="$TMP_DOWNLOAD_DIR/Downloader.java"
  targetZip="$TMP_DOWNLOAD_DIR/$distributionUrlName"
  cat >"$javaSource" <<-END
        public class Downloader extends java.net.Authenticator
        {
          protected java.net.PasswordAuthentication getPasswordAuthentication()
          {
            return new java.net.PasswordAuthentication( System.getenv( 
"MVNW_USERNAME" ), System.getenv( "MVNW_PASSWORD" 
).toCharArray() );
          }
          public static void main( String[] args ) throws Exception
          {
            setDefault( new Downloader() );
```

```
              java.nio.file.Files.copy( java.net.URI.create( args[0] ).toURL().openStream(), java.nio.file.Paths.get( args[1] ).toAbsolutePath().normalize() );
            }
          }
          END
  # For Cygwin/MinGW, switch paths to Windows format before running javac and java
  verbose " - Compiling Downloader.java ..."
  "$(native_path "$JAVACCMD")" "$(native_path "$javaSource")" || die "Failed to compile Downloader.java"
  verbose " - Running Downloader.java ..."
  "$(native_path "$JAVACMD")" -cp "$(native_path "$TMP_DOWNLOAD_DIR")" Downloader "$distributionUrl" "$(native_path "$targetZip")"
fi

# If specified, validate the SHA-256 sum of the Maven distribution zip file
if [ -n "${distributionSha256Sum-}" ]; then
  distributionSha256Result=false
  if [ "$MVN_CMD" = mvnd.sh ]; then
    echo "Checksum validation is not supported for maven-mvnd." >&2
    echo "Please disable validation by removing 'distributionSha256Sum' from your maven-wrapper.properties." >&2
    exit 1
  elif command -v sha256sum >/dev/null; then
    if echo "$distributionSha256Sum $TMP_DOWNLOAD_DIR/$distributionUrlName" | sha256sum -c >/dev/null 2>&1; then
      distributionSha256Result=true
    fi
  elif command -v shasum >/dev/null; then
    if echo "$distributionSha256Sum $TMP_DOWNLOAD_DIR/$distributionUrlName" | shasum -a 256 -c >/dev/null 2>&1; then
      distributionSha256Result=true
    fi
  else
    echo "Checksum validation was requested but neither 'sha256sum' or 'shasum' are available." >&2
    echo "Please install either command, or disable validation by removing 'distributionSha256Sum' from your maven-wrapper.properties." >&2
    exit 1
  fi
  if [ $distributionSha256Result = false ]; then
    echo "Error: Failed to validate Maven distribution SHA-256, your Maven distribution might be compromised." >&2
    echo "If you updated your Maven version, you need to update the specified distributionSha256Sum property." >&2
    exit 1
  fi
fi

# unzip and move
if command -v unzip >/dev/null; then
  unzip ${__MVNW_QUIET_UNZIP:+"$__MVNW_QUIET_UNZIP"} "$TMP_DOWNLOAD_DIR/$distributionUrlName" -d "$TMP_DOWNLOAD_DIR" || die "failed to unzip"
else
```

```
  tar xzf${__MVNW_QUIET_TAR:+"$__MVNW_QUIET_TAR"} "$TMP_DOWNLOAD_DIR/$distributionUrlName" -C "$TMP_DOWNLOAD_DIR" || die "failed to untar"

fi

printf %s\\n "$distributionUrl" >"$TMP_DOWNLOAD_DIR/$distributionUrlNameMain/mvnw.url"

mv -- "$TMP_DOWNLOAD_DIR/$distributionUrlNameMain" "$MAVEN_HOME" || [ -d "$MAVEN_HOME" ] || die "fail to move MAVEN_HOME"

clean || :

exec_maven "$@"
```

mvnw.cmd:

```
<# : batch portion

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```

```
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@REM ----------------------------------------------------------------------------

@REM ----------------------------------------------------------------------------
@REM Apache Maven Wrapper startup batch script, version 3.3.2
@REM
@REM Optional ENV vars
@REM   MVNW_REPOURL - repo url base for downloading maven distribution
@REM   MVNW_USERNAME/MVNW_PASSWORD - user and password for downloading maven
@REM   MVNW_VERBOSE - true: enable verbose log; others: silence the output
@REM ----------------------------------------------------------------------------

@IF "%__MVNW_ARG0_NAME__%"=="" (SET __MVNW_ARG0_NAME__=%~nx0)
@SET __MVNW_CMD__=
@SET __MVNW_ERROR__=
@SET __MVNW_PSMODULEP_SAVE=%PSModulePath%
@SET PSModulePath=
@FOR /F "usebackq tokens=1* delims==" %%A IN (`powershell -noprofile "& {$scriptDir='%~dp0'; $script='%__MVNW_ARG0_NAME__%'; icm -ScriptBlock ([Scriptblock]::Create((Get-Content -Raw '%~f0'))) -NoNewScope}"`) DO @(
  IF "%%A"=="MVN_CMD" (set __MVNW_CMD__=%%B) ELSE IF "%%B"=="" (echo %%A) ELSE (echo %%A=%%B)
)
@SET PSModulePath=%__MVNW_PSMODULEP_SAVE%
```
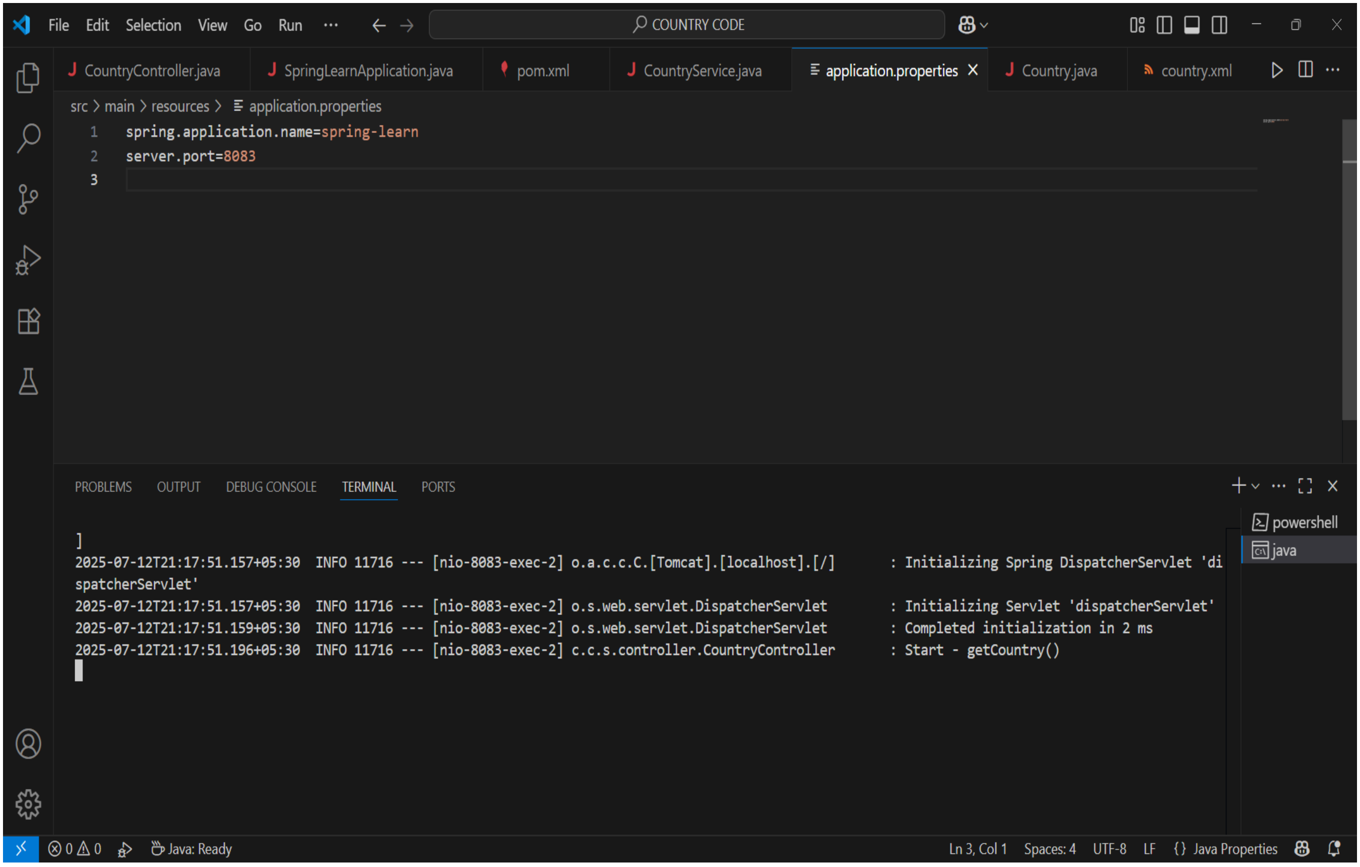

```
@SET __MVNW_PSMODULEP_SAVE=
@SET __MVNW_ARG0_NAME__=
@SET MVNW_USERNAME=
@SET MVNW_PASSWORD=
@IF NOT "%__MVNW_CMD__%"=="" (%__MVNW_CMD__% %*)
@echo Cannot start maven from wrapper >&2 && exit /b 1
@GOTO :EOF
: end batch / begin powershell #>

$ErrorActionPreference = "Stop"
if ($env:MVNW_VERBOSE -eq "true") {
  $VerbosePreference = "Continue"
}

# calculate distributionUrl, requires .mvn/wrapper/maven-wrapper.properties
$distributionUrl = (Get-Content -Raw "$scriptDir/.mvn/wrapper/maven-wrapper.properties" | ConvertFrom-StringData).distributionUrl
if (!$distributionUrl) {
  Write-Error "cannot read distributionUrl property in $scriptDir/.mvn/wrapper/maven-wrapper.properties"
}

switch -wildcard -casesensitive ( $($distributionUrl -replace '^.*/','') ) {
  "maven-mvnd-*" {
    $USE_MVND = $true
    $distributionUrl = $distributionUrl -replace '-bin\.[^.]*$',"-windows-amd64.zip"
    $MVN_CMD = "mvnd.cmd"
    break
  }
  default {
    $USE_MVND = $false
    $MVN_CMD = $script -replace '^mvnw','mvn'
    break
  }
}

# apply MVNW_REPOURL and calculate MAVEN_HOME
# maven home pattern: ~/.m2/wrapper/dists/{apache-maven-<version>,maven-mvnd-<version>-<platform>}/<hash>
if ($env:MVNW_REPOURL) {
  $MVNW_REPO_PATTERN = if ($USE_MVND) { "/org/apache/maven/" } else { "/maven/mvnd/" }
  $distributionUrl = "$env:MVNW_REPOURL$MVNW_REPO_PATTERN$($distributionUrl -replace '^.*'+$MVNW_REPO_PATTERN,'')"
}
$distributionUrlName = $distributionUrl -replace '^.*/',''
$distributionUrlNameMain = $distributionUrlName -replace '\.[^.]*$','' -replace '-bin$',''
$MAVEN_HOME_PARENT = "$HOME/.m2/wrapper/dists/$distributionUrlNameMain"
if ($env:MAVEN_USER_HOME) {
  $MAVEN_HOME_PARENT = "$env:MAVEN_USER_HOME/wrapper/dists/$distributionUrlNameMain"
}
```

```
$MAVEN_HOME_NAME =
([System.Security.Cryptography.MD5]::Create().ComputeHash([byte[]][char[]]
$distributionUrl) | ForEach-Object {$_.ToString("x2")}) -join "
$MAVEN_HOME =
"$MAVEN_HOME_PARENT/$MAVEN_HOME_NAME"


if (Test-Path -Path "$MAVEN_HOME" -PathType Container) {
  Write-Verbose "found existing MAVEN_HOME at $MAVEN_HOME"
  Write-Output "MVN_CMD=$MAVEN_HOME/bin/$MVN_CMD"
  exit $?
}


if (! $distributionUrlNameMain -or ($distributionUrlName -eq
$distributionUrlNameMain)) {
  Write-Error "distributionUrl is not valid, must end with *-bin.zip, but found
$distributionUrl"
}


# prepare tmp dir
$TMP_DOWNLOAD_DIR_HOLDER = New-TemporaryFile
$TMP_DOWNLOAD_DIR = New-Item -Itemtype Directory -Path
"$TMP_DOWNLOAD_DIR_HOLDER.dir"
$TMP_DOWNLOAD_DIR_HOLDER.Delete() | Out-Null
trap {
  if ($TMP_DOWNLOAD_DIR.Exists) {
    try { Remove-Item $TMP_DOWNLOAD_DIR -Recurse -Force | Out-Null }
    catch { Write-Warning "Cannot remove $TMP_DOWNLOAD_DIR" }
  }
}
```

```
New-Item -Itemtype Directory -Path "$MAVEN_HOME_PARENT" -Force | Out-Null

# Download and Install Apache Maven
Write-Verbose "Couldn't find MAVEN_HOME, downloading and installing it ..."
Write-Verbose "Downloading from: $distributionUrl"
Write-Verbose "Downloading to: $TMP_DOWNLOAD_DIR/$distributionUrlName"

$webclient = New-Object System.Net.WebClient
if ($env:MVNW_USERNAME -and $env:MVNW_PASSWORD) {
  $webclient.Credentials = New-Object System.Net.NetworkCredential($env:MVNW_USERNAME, $env:MVNW_PASSWORD)
}
[Net.ServicePointManager]::SecurityProtocol = [Net.SecurityProtocolType]::Tls12
$webclient.DownloadFile($distributionUrl, "$TMP_DOWNLOAD_DIR/$distributionUrlName") | Out-Null

# If specified, validate the SHA-256 sum of the Maven distribution zip file
$distributionSha256Sum = (Get-Content -Raw "$scriptDir/.mvn/wrapper/maven-wrapper.properties" | ConvertFrom-StringData).distributionSha256Sum
if ($distributionSha256Sum) {
  if ($USE_MVND) {
    Write-Error "Checksum validation is not supported for maven-mvnd. `nPlease disable validation by removing 'distributionSha256Sum' from your maven-wrapper.properties."
  }
  Import-Module $PSHOME\Modules\Microsoft.PowerShell.Utility -Function Get-FileHash
  if ((Get-FileHash "$TMP_DOWNLOAD_DIR/$distributionUrlName" -Algorithm SHA256).Hash.ToLower() -ne $distributionSha256Sum) {
    Write-Error "Error: Failed to validate Maven distribution SHA-256, your Maven distribution might be compromised. If you updated your Maven version, you need to update the specified distributionSha256Sum property."
  }
}

# unzip and move
Expand-Archive "$TMP_DOWNLOAD_DIR/$distributionUrlName" -DestinationPath "$TMP_DOWNLOAD_DIR" | Out-Null
Rename-Item -Path "$TMP_DOWNLOAD_DIR/$distributionUrlNameMain" -NewName $MAVEN_HOME_NAME | Out-Null
try {
  Move-Item -Path "$TMP_DOWNLOAD_DIR/$MAVEN_HOME_NAME" -Destination $MAVEN_HOME_PARENT | Out-Null
} catch {
  if (! (Test-Path -Path "$MAVEN_HOME" -PathType Container)) {
    Write-Error "fail to move MAVEN_HOME"
  }
} finally {
  try { Remove-Item $TMP_DOWNLOAD_DIR -Recurse -Force | Out-Null }
  catch { Write-Warning "Cannot remove $TMP_DOWNLOAD_DIR" }
}

Write-Output "MVN_CMD=$MAVEN_HOME/bin/$MVN_CMD"
```

OUTPUT:



```
spring.application.name=spring-learn
server.port=8083

```

```
]
2025-07-12T21:17:51.157+05:30  INFO 11716 --- [nio-8083-exec-2] o.a.c.c.C.[Tomcat].[localhost].[/]       : Initializing Spring DispatcherServlet 'di
spatcherServlet'
2025-07-12T21:17:51.157+05:30  INFO 11716 --- [nio-8083-exec-2] o.s.web.servlet.DispatcherServlet        : Initializing Servlet 'dispatcherServlet'
2025-07-12T21:17:51.159+05:30  INFO 11716 --- [nio-8083-exec-2] o.s.web.servlet.DispatcherServlet        : Completed initialization in 2 ms
2025-07-12T21:17:51.196+05:30  INFO 11716 --- [nio-8083-exec-2] c.c.s.controller.CountryController       : Start - getCountry()
```