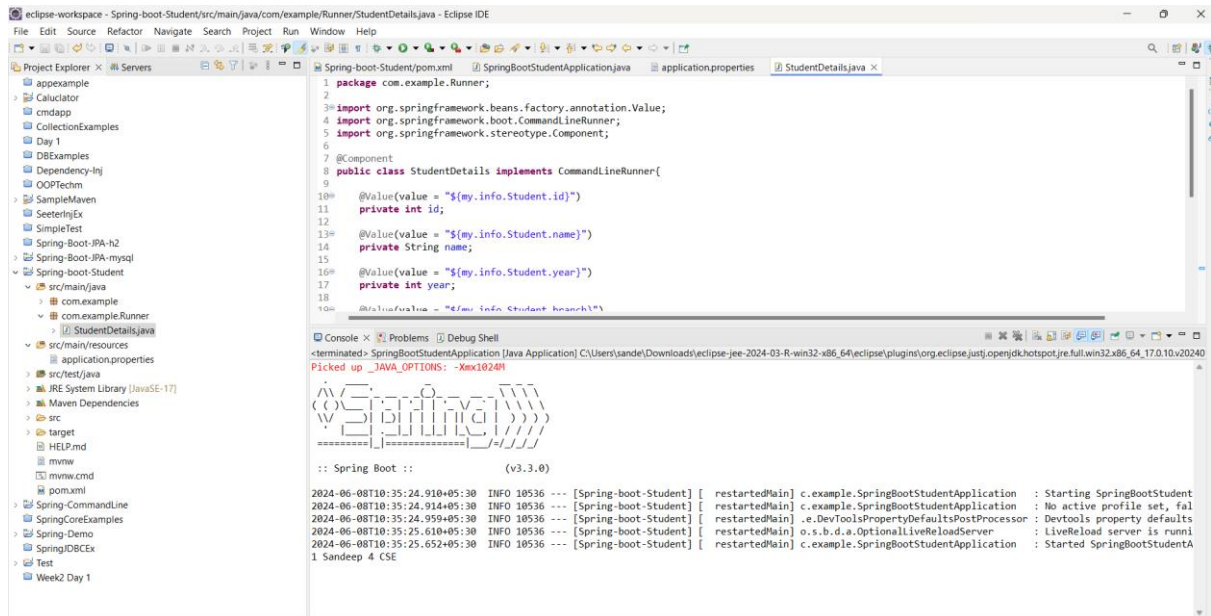
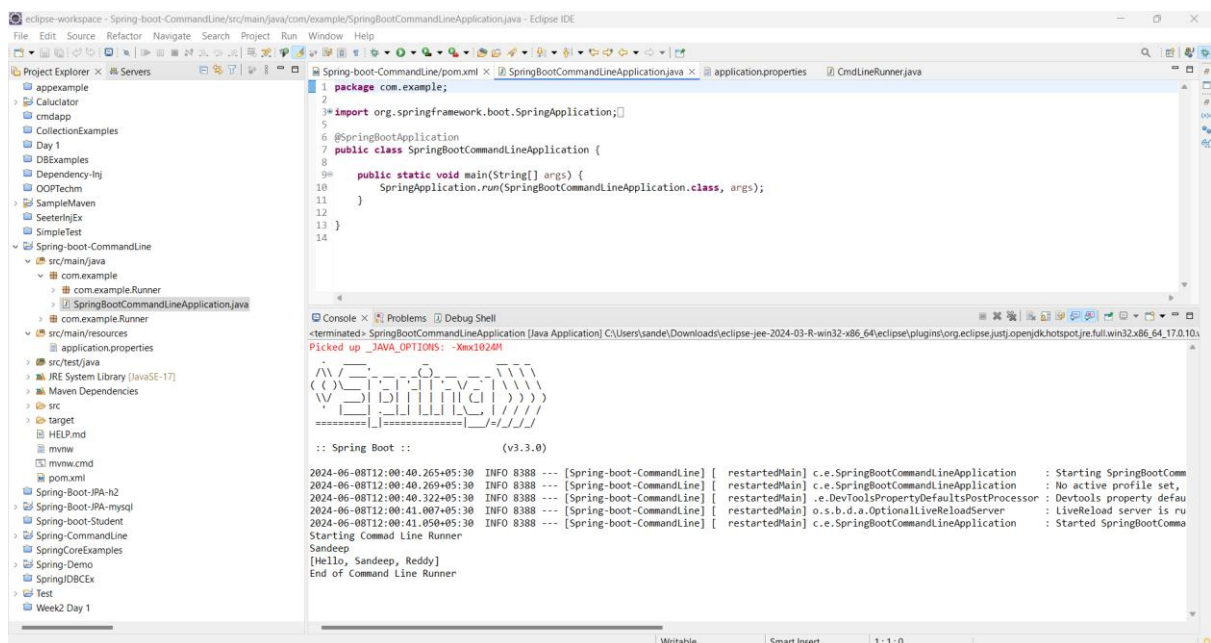


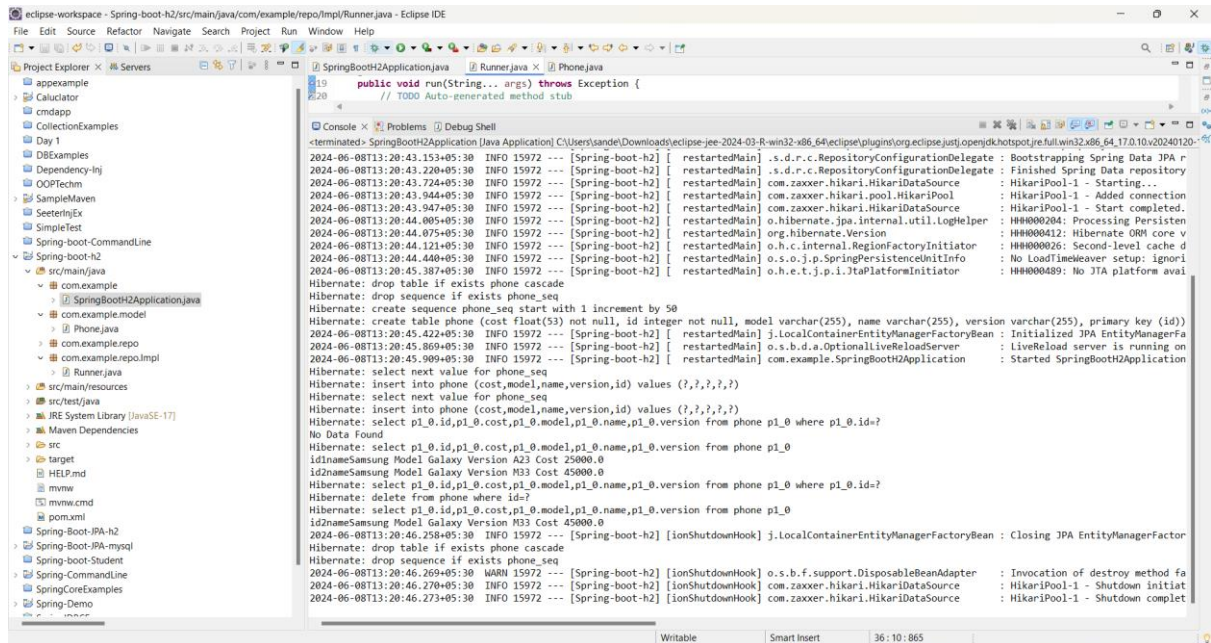
Task 1



Task 2



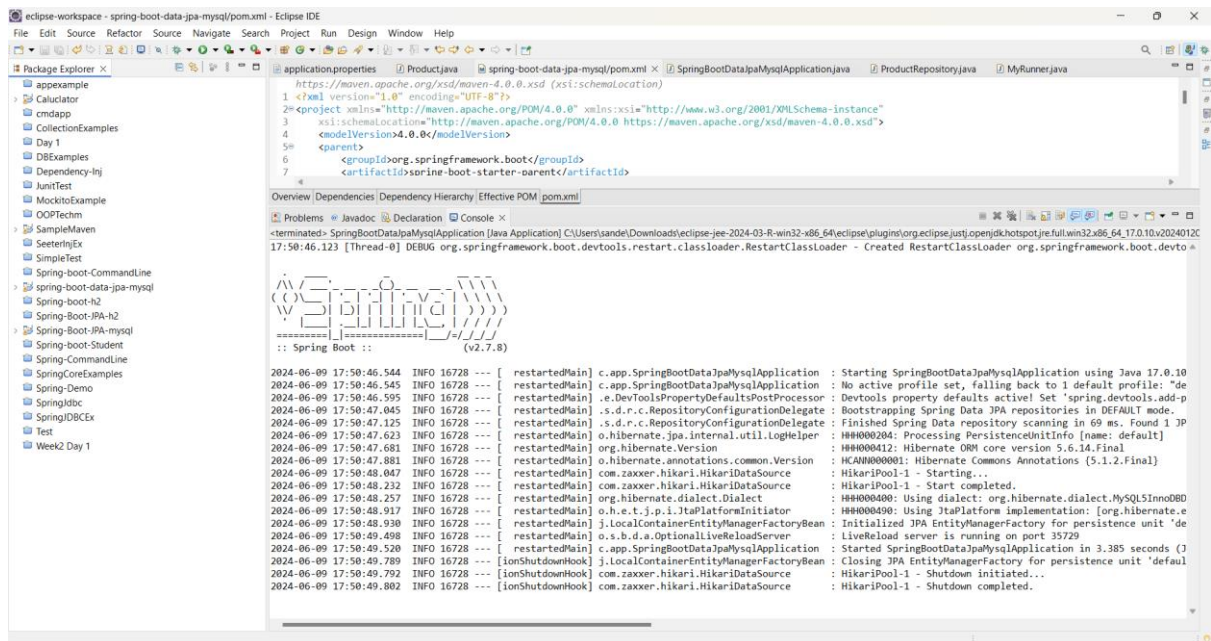
Task 3



The screenshot shows the Eclipse IDE with a Spring Boot application. The main code file is `SpringBootH2Application.java`, which contains a `public void run(String... args) throws Exception` method. The console output shows the application starting and running successfully. The output includes the following log messages:

```
<terminated> SpringBootH2Application [Java Application] C:\Users\sande\Downloads\ eclipse-jee-2024-03-R-win32-x86_64\ eclipse\ plugins\ org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.10.v20240120-...
2024-06-08T13:20:43.153+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA r
2024-06-08T13:20:43.220+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository
2024-06-08T13:20:43.724+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2024-06-08T13:20:43.944+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] com.zaxxer.hikari.pool.HikariPool : HikariPool-1 - Added connection
2024-06-08T13:20:43.947+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2024-06-08T13:20:44.005+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] o.hibernate.jpa.internal.util.LogHelper : HH0000204: Processing Persisten
2024-06-08T13:20:44.075+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] org.hibernate.Version : HH0000412: Hibernate ORM core v
2024-06-08T13:20:44.121+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] o.h.c.internal.RegionFactoryInitiator : HH0000026: Second-level cache d
2024-06-08T13:20:44.440+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] o.s.o.j.p.SpringPersistenceUnitInfo : No LoadTimeWeaver setup; ignori
2024-06-08T13:20:45.387+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] o.h.e.t.j.p.i.JtaPlatformInitiator : HH0000489: No JTA platform avai
Hibernate: drop sequence if exists phone_seq
Hibernate: create sequence phone_seq start with 1 increment by 50
Hibernate: create table phone (cost float(53) not null, id integer not null, model varchar(255), name varchar(255), version varchar(255), primary key (id))
2024-06-08T13:20:45.422+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFae
2024-06-08T13:20:45.860+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on
2024-06-08T13:20:45.909+05:30 INFO 15972 --- [Spring-boot-h2] [ restartedMain] com.example.SpringBootH2Application : Started SpringBootH2Application
No Data Found
Hibernate: select next value for phone_seq
Hibernate: insert into phone (cost,model,name,version,id) values (?,?,?,?,?)
Hibernate: select next value for phone_seq
Hibernate: insert into phone (cost,model,name,version,id) values (?,?,?,?,?)
Hibernate: select pl_0.id,pl_0.cost,pl_0.model,pl_0.name,pl_0.version from phone pl_0 where pl_0.id=?
No Data Found
Hibernate: select pl_0.id,pl_0.cost,pl_0.model,pl_0.name,pl_0.version from phone pl_0
idNameSamsung Model Galaxy Version A23 Cost 25000.0
idNameSamsung Model Galaxy Version H33 Cost 45000.0
Hibernate: select pl_0.id,pl_0.cost,pl_0.model,pl_0.name,pl_0.version from phone pl_0 where pl_0.id=?
Hibernate: delete from phone where id=?
Hibernate: select pl_0.id,pl_0.cost,pl_0.model,pl_0.name,pl_0.version from phone pl_0
idNameSamsung Model Galaxy Version H33 Cost 45000.0
2024-06-08T13:20:46.258+05:30 INFO 15972 --- [Spring-boot-h2] [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactor
Hibernate: drop table if exists phone cascade
Hibernate: drop sequence if exists phone_seq
2024-06-08T13:20:46.269+05:30 WARN 15972 --- [Spring-boot-h2] [ionShutdownHook] o.s.b.f.support.DisposableBeanAdapter : Invocation of destroy method fa
2024-06-08T13:20:46.270+05:30 INFO 15972 --- [Spring-boot-h2] [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiat
2024-06-08T13:20:46.273+05:30 INFO 15972 --- [Spring-boot-h2] [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown complet
```

Task 4



The screenshot shows the Eclipse IDE with a Spring Boot application. The main code file is `SpringBootDataJpaMysqlApplication.java`, which contains a `public void run(String... args) throws Exception` method. The console output shows the application starting and running successfully. The output includes the following log messages:

```
<terminated> SpringBootDataJpaMysqlApplication [Java Application] C:\Users\sande\Downloads\ eclipse-jee-2024-03-R-win32-x86_64\ eclipse\ plugins\ org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.10.v20240120-...
17:50:46.123 [Thread-0] DEBUG org.springframework.boot.devtools.restart.classloader.RestartClassLoader - Created RestartClassLoader org.springframework.boot.devto
:: Spring Boot :: (v2.7.8)
2024-06-09 17:50:46.544 INFO 16728 --- [ restartedMain] c.app.SpringBootDataJpaMysqlApplication : Starting SpringBootDataJpaMysqlApplication using Java 17.0.10
2024-06-09 17:50:46.545 INFO 16728 --- [ restartedMain] c.app.SpringBootDataJpaMysqlApplication : No active profile set, falling back to 1 default profile: "de
2024-06-09 17:50:46.595 INFO 16728 --- [ restartedMain] e.DevToolsPropertyDefaultsPostProcessor : DevTools property defaults active! Set 'spring.devtools.add-p
2024-06-09 17:50:47.045 INFO 16728 --- [ restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2024-06-09 17:50:47.125 INFO 16728 --- [ restartedMain] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 69 ms. Found 1 JP
2024-06-09 17:50:47.623 INFO 16728 --- [ restartedMain] o.hibernate.jpa.internal.util.LogHelper : HH0000204: Processing PersistenceUnitInfo [name: default]
2024-06-09 17:50:47.681 INFO 16728 --- [ restartedMain] org.hibernate.Version : HH0000412: Hibernate ORM core version 5.6.14.Final
2024-06-09 17:50:47.881 INFO 16728 --- [ restartedMain] o.hibernate.annotations.common.Version : HCANN000001: Hibernate Commons Annotations (5.1.2.Final)
2024-06-09 17:50:48.047 INFO 16728 --- [ restartedMain] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2024-06-09 17:50:48.232 INFO 16728 --- [ restartedMain] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2024-06-09 17:50:48.257 INFO 16728 --- [ restartedMain] org.hibernate.dialect.Dialect : HH0000000: Using dialect: org.hibernate.dialect.MySQL5InnoDBD
2024-06-09 17:50:48.917 INFO 16728 --- [ restartedMain] o.h.e.t.j.p.i.JtaPlatformInitiator : HH0000490: Using JtaPlatform implementation: [org.hibernate.e
2024-06-09 17:50:49.498 INFO 16728 --- [ restartedMain] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'de
2024-06-09 17:50:49.520 INFO 16728 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2024-06-09 17:50:49.520 INFO 16728 --- [ restartedMain] c.app.SpringBootDataJpaMysqlApplication : Started SpringBootDataJpaMysqlApplication in 3.385 seconds (?)
2024-06-09 17:50:49.789 INFO 16728 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit 'default
2024-06-09 17:50:49.792 INFO 16728 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiated...
2024-06-09 17:50:49.802 INFO 16728 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed.
```

```
mysql> select * from product;
```

prod_id	prod_cost	prod_name	vendor_code
73	100.5	Paslma	Samsung
83	85000	TV	OnePlus
93	25000	Nord	Vivo

```
3 rows in set (0.00 sec)
```

Task 6

```
package com.examples;
import java.util.List;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;

public class Client {

    public static void main(String args[])
    {
        ApplicationContext ctx= new ClassPathXmlApplicationContext("config.xml");
        StudentTemplate stud=(StudentTemplate)ctx.getBean("stu");

        int istatus= stud.saveStudent(new Student(101,"Vishwanth","CSE",4));
        System.out.println("Inserted successfully: "+istatus);
        istatus= stud.saveStudent(new Student(102,"Sriker","CSE",4));
    }
}
```

```
<terminated> Client (2) [Java Application] C:\Users\sande\Downloads\eclipse-jee-2024-03-R-win32-x86_64\eclipse\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.10.v20240120-1143\jre\bin\javaw.exe (0
Jun 08, 2024 11:48:41 PM org.springframework.context.support.AbstractApplicationContext prepareRefresh
INFO: Refreshing org.springframework.context.support.ClassPathXmlApplicationContext@6d4bc02: startup date [Sat Jun 08 23:48:41 IST 2024]; root of context hierarc
Jun 08, 2024 11:48:41 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions
INFO: Loading XML bean definitions from class path resource [config.xml]
Jun 08, 2024 11:48:41 PM org.springframework.jdbc.datasource.DriverManagerDataSource setDriverClassName
INFO: Loaded JDBC driver: com.mysql.cj.jdbc.Driver
Inserted successfully: 1
Inserted successfully: 1
Inserted successfully: 1
Updated Successfully: 1
Deleted Successfully: 1
101 Vishwanth CSE 4
103 Rajesh CSE 4
```

```
MySQL 8.4 Command Line Cli
mysql> select * from student;
Empty set (0.00 sec)

mysql> select * from student;
```

id	name	branch	year
101	Vishwanth	CSE	4
103	Rajesh	CSE	4
101	Vishwanth	CSE	4
103	Rajesh	CSE	4

```
4 rows in set (0.00 sec)

mysql> truncate table student;
Query OK, 0 rows affected (0.07 sec)

mysql> select * from student;
Empty set (0.01 sec)

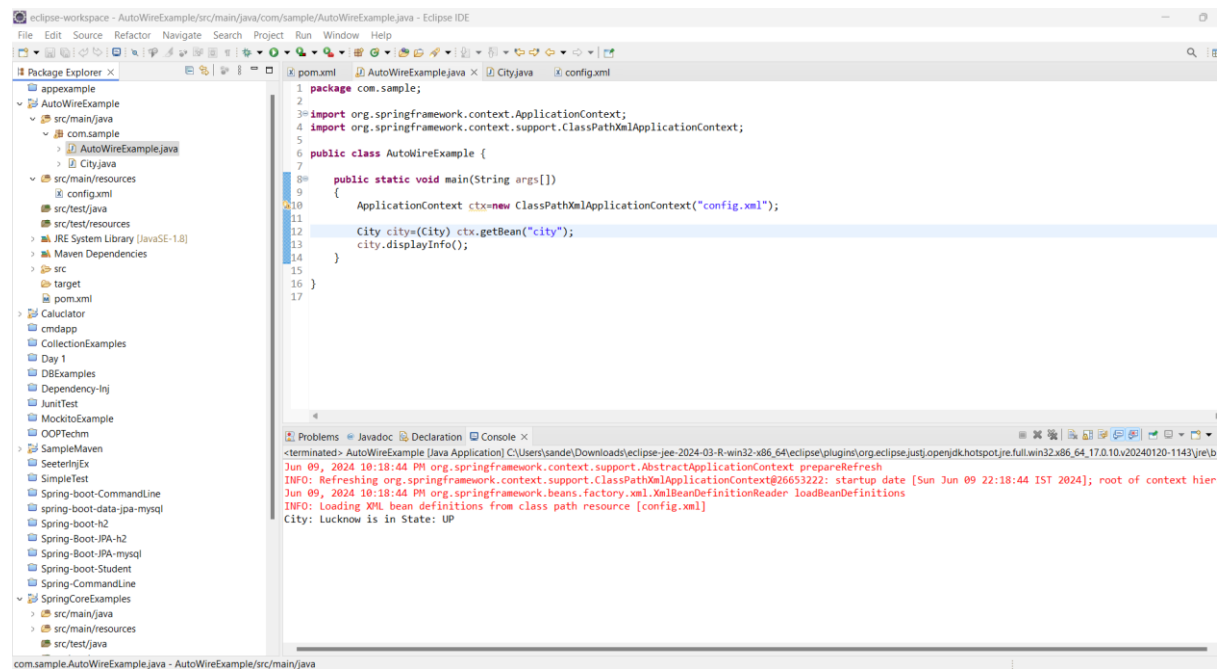
mysql> select * from student;
```

id	name	branch	year
101	Vishwanth	CSE	4
103	Rajesh	CSE	4

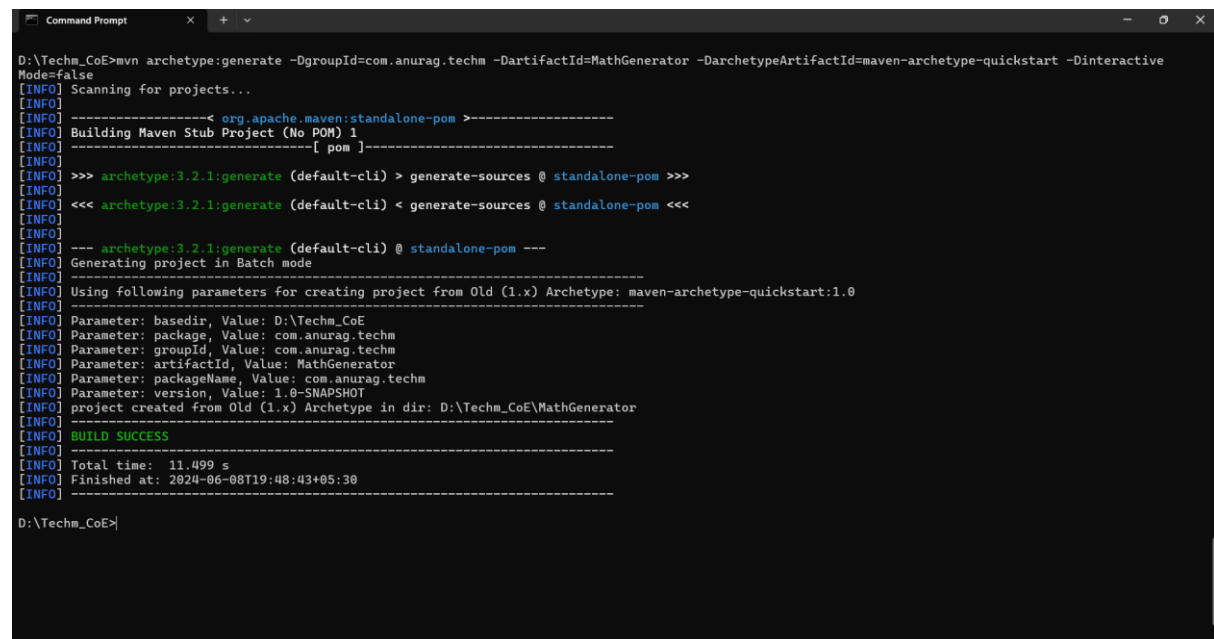
```
2 rows in set (0.00 sec)

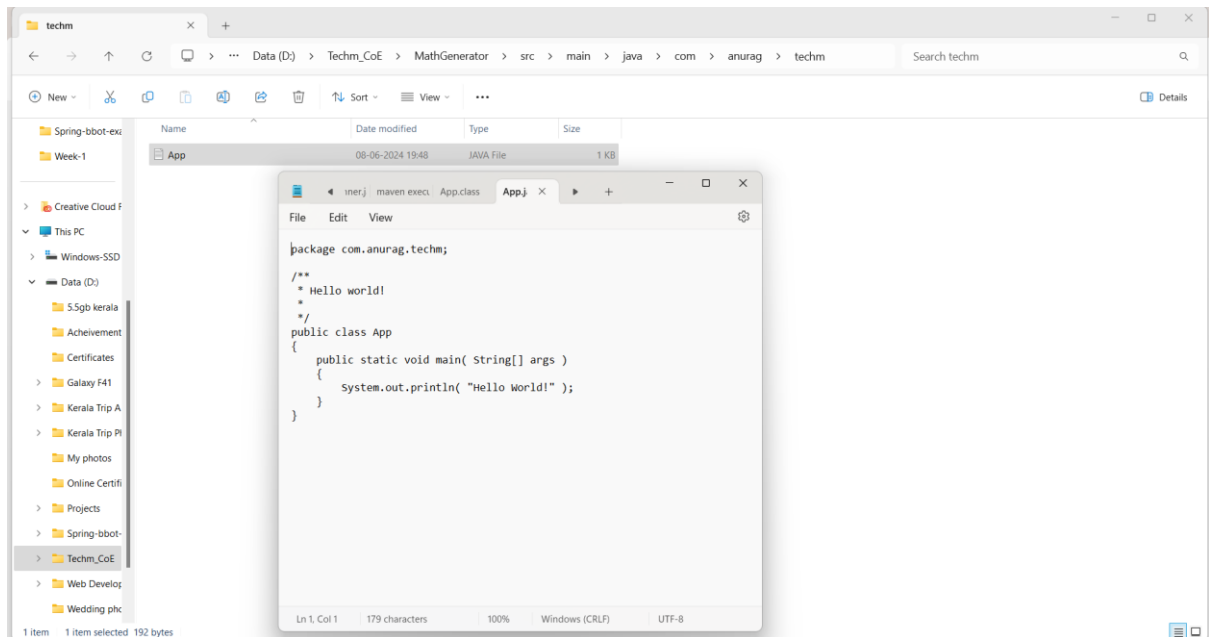
mysql>
```

Task 7



Task 8





Task 10

