Hands-on 1:

```
{\bf Spring Learn Application. java:}
```

```
package com.cognizant.spring_learn;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
public class SpringLearnApplication {
    private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);
    public static void main(String[] args) {
        LOGGER.info("START");
        SpringApplication.run(SpringLearnApplication.class, args);
        LOGGER.info("END");
}
```

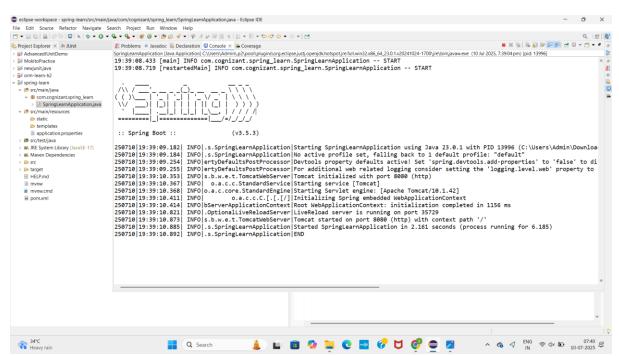
application.properties:

logging.level.org.springframework=info

logging.level.com.cognizant.springlearn=debug

logging.pattern.console=%d{yyMMdd}|%d{HH:mm:ss.SSS}|%5p|%25.25logger{25}|%m%n

OUTPUT:



Hands-on 2:

SpringLearnApplication.java:

```
package com.cognizant.spring_learn;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
@SpringBootApplication
public class SpringLearnApplication {
  private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);
  public static void main(String[] args) {
    SpringApplication.run(SpringLearnApplication.class, args);
    displayDate();
  }
  public static void displayDate() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");
    SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);
    try {
      Date date = format.parse("31/12/2018");
      LOGGER.debug("Parsed Date: {}", date.toString());
    } catch (ParseException e) {
      LOGGER.error("Date parsing failed", e);
    }
    LOGGER.info("END");
  }
```

```
}
```

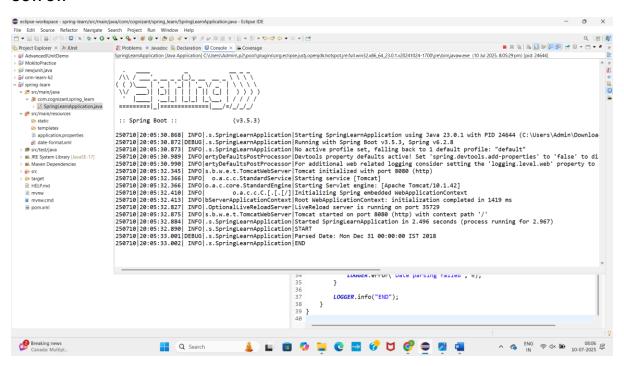
application.properties:

logging.level.org.springframework=info
logging.level.com.cognizant.spring_learn=debug
logging.pattern.console=%d{yyMMdd}|%d{HH:mm:ss.SSS}|%5p|%25.25logger{25}|%m%n
spring.devtools.restart.enabled=false

date-format.xml:

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    https://www.springframework.org/schema/beans/spring-beans.xsd">
    <bean id="dateFormat" class="java.text.SimpleDateFormat">
        <constructor-arg value="dd/MM/yyyy"/>
        </bean>
</bean>
```

OUTPUT:



Hands-on 3:

SpringLearnApplication.java:

```
package com.cognizant.spring_learn;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Date;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
@SpringBootApplication
public class SpringLearnApplication {
  private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);
  public static void main(String[] args) {
    SpringApplication.run(SpringLearnApplication.class, args);
    displayDate();
    displayCountry();
  }
  public static void displayDate() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");
    SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);
    try {
      Date date = format.parse("31/12/2018");
      LOGGER.debug("Parsed Date: {}", date.toString());
    } catch (ParseException e) {
      LOGGER.error("Date parsing failed", e);
    }
    LOGGER.info("END");
  }
  public static void displayCountry() {
```

```
LOGGER.info("START");

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

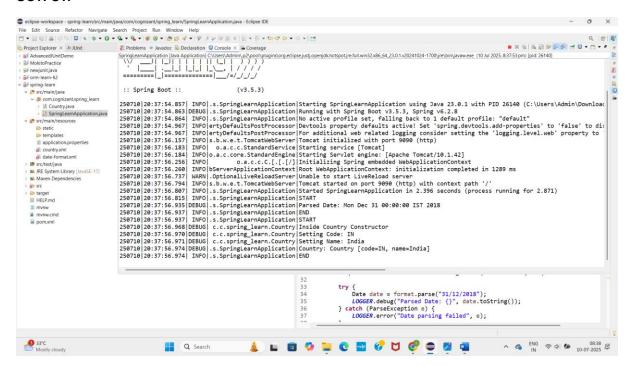
Country country = context.getBean("country", Country.class);

LOGGER.debug("Country: {}", country.toString());

LOGGER.info("END");

}
```

OUTPUT:



Hands-on 4:

SpringLearnApplication.java:

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

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

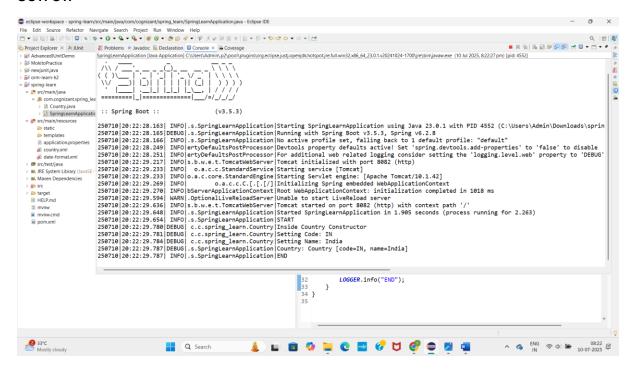
import org.springframework.context.ApplicationContext;

```
import\ org. spring framework. context. support. Class Path Xml Application Context;
@SpringBootApplication
public class SpringLearnApplication {
  private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);
  public static void main(String[] args) {
    SpringApplication.run(SpringLearnApplication.class, args);
    displayCountry();
  }
  public static void displayCountry() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
    Country country = context.getBean("country", Country.class);
    LOGGER.debug("Country: {}", country.toString());
    LOGGER.info("END");
  }
}
Country.java:
package com.cognizant.spring_learn;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
public class Country {
  private static final Logger LOGGER = LoggerFactory.getLogger(Country.class);
  private String code;
  private String name;
  public Country() {
    LOGGER.debug("Inside Country Constructor");
  }
  public String getCode() {
    LOGGER.debug("Getting Code: {}", code);
    return code;
  }
```

```
LOGGER.debug("Setting Code: {}", code);
    this.code = code;
  }
  public String getName() {
    LOGGER.debug("Getting Name: {}", name);
    return name;
  }
  public void setName(String name) {
    LOGGER.debug("Setting Name: {}", name);
    this.name = name;
  }
  @Override
  public String toString() {
    return "Country [code=" + code + ", name=" + name + "]";
  }
}
application.properties:
server.port=8082
logging.level.org.springframework=info
logging.level.com.cognizant.spring_learn=debug
logging.pattern.console=%d{yyMMdd}|%d{HH:mm:ss.SSS}|%5p|%25.25logger{25}|%m%n
spring.devtools.restart.enabled=false
country.xml
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="http://www.springframework.org/schema/beans
   https://www.springframework.org/schema/beans/spring-beans.xsd">
  <bean id="country" class="com.cognizant.spring_learn.Country">
    cproperty name="code" value="IN" />
```

public void setCode(String code) {

OUTPUT:



Hands-on 5:

SpringLearnApplication.java:

package com.cognizant.spring learn;

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@SpringBootApplication

public class SpringLearnApplication {

private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);

```
public static void main(String[] args) {
    SpringApplication.run(SpringLearnApplication.class, args);
    displayDate();
    displayCountry();
  }
  public static void displayDate() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");
    SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);
    try {
      Date date = format.parse("31/12/2018");
      LOGGER.debug("Parsed Date: {}", date.toString());
    } catch (ParseException e) {
      LOGGER.error("Date parsing failed", e);
    }
    LOGGER.info("END");
  }
  public static void displayCountry() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
    Country country = context.getBean("country", Country.class);
    LOGGER.debug("Country: {}", country.toString());
    LOGGER.info("END");
  }
}
application.properties:
# Set log level for Spring framework logs
logging.level.org.springframework=info
logging.level.com.cognizant.spring_learn=debug
logging.pattern.console=%d{yyMMdd}|%d{HH:mm:ss.SSS}|%5p|%25.25logger{25}|%m%n
```

spring.devtools.restart.enabled=false

server.port=8082

OUTPUT:

```
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```

Hands-on 6:

SpringLearnApplication.java:

package com.cognizant.spring learn;

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.util.List;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import org.springframework.context.ApplicationContext;

 $import\ org. spring framework. context. support. Class Path Xml Application Context;$

@SpringBootApplication

public class SpringLearnApplication {

private static final Logger LOGGER = LoggerFactory.getLogger(SpringLearnApplication.class);

```
public static void main(String[] args) {
  SpringApplication.run(SpringLearnApplication.class, args);
  displayDate();
  displayCountry();
  displayCountryScope();
  displayCountries();
}
public static void displayDate() {
  LOGGER.info("START");
  ApplicationContext context = new ClassPathXmlApplicationContext("date-format.xml");
  SimpleDateFormat format = context.getBean("dateFormat", SimpleDateFormat.class);
  try {
    Date date = format.parse("31/12/2018");
    LOGGER.debug("Parsed Date: {}", date.toString());
  } catch (ParseException e) {
    LOGGER.error("Date parsing failed", e);
  }
  LOGGER.info("END");
}
public static void displayCountry() {
  LOGGER.info("START");
  ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
  Country country = context.getBean("country", Country.class);
  LOGGER.debug("Country: {}", country.toString());
  LOGGER.info("END");
}
public static void displayCountryScope() {
  LOGGER.info("START");
  ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
  Country country1 = context.getBean("country", Country.class);
  Country country2 = context.getBean("country", Country.class);
```

```
LOGGER.debug("Country 1: {}", country1);
    LOGGER.debug("Country 2: {}", country2);
    LOGGER.info("END");
  }
  public static void displayCountries() {
    LOGGER.info("START");
    ApplicationContext context = new ClassPathXmlApplicationContext("country.xml");
    @SuppressWarnings("unchecked")
    List<Country> countryList = (List<Country>) context.getBean("countryList");
    LOGGER.debug("Country List: {}", countryList);
    LOGGER.info("END");
  }
}
Country.xml:
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="http://www.springframework.org/schema/beans
   https://www.springframework.org/schema/beans/spring-beans.xsd">
  <bean id="in" class="com.cognizant.spring_learn.Country">
    cproperty name="code" value="IN"/>
    roperty name="name" value="India"/>
  </bean>
  <bean id="us" class="com.cognizant.spring_learn.Country">
    cproperty name="code" value="US"/>
    property name="name" value="United States"/>
  </bean>
  <bean id="de" class="com.cognizant.spring_learn.Country">
    code" value="DE"/>
    cproperty name="name" value="Germany"/>
```

```
</bean>
  <bean id="jp" class="com.cognizant.spring_learn.Country">
    cproperty name="code" value="JP"/>
    cproperty name="name" value="Japan"/>
  </bean>
  <bean id="countryList" class="java.util.ArrayList">
    <constructor-arg>
      <list>
        <ref bean="in"/>
        <ref bean="us"/>
        <ref bean="de"/>
        <ref bean="ip"/>
      </list>
    </constructor-arg>
  </bean>
</beans>
```

OUTPUT:

