1)

```java
class Book {
    private String title;
    private int ISBN;
    private String authorName;
    private int publishedYear;

    public Book(String title, int ISBN, String authorName, int publishedYear) {
        this.title = title;
        this.ISBN = ISBN;
        this.authorName = authorName;
        this.publishedYear = publishedYear;
    }

    public Book() {
    }

    public String getTitle() {
        return title;
    }

    public void setTitle(String title) {
        this.title = title;
    }

    public int getISBN() {
        return ISBN;
    }

    public void setISBN(int ISBN) {
        this.ISBN = ISBN;
    }

    public String getAuthorName() {
        return authorName;
    }

    public void setAuthorName(String authorName) {
        this.authorName = authorName;
    }

    public int getPublishedYear() {
        return publishedYear;
    }
```

```java
    public void setPublishedYear(int publishedYear) {
        this.publishedYear = publishedYear;
    }

    void asString() {
        System.out.println("Book [title=" + title + ", ISBN=" + ISBN + ", authorName=" +
authorName + ", publishedYear=" + publishedYear + "]");
    }
}

public class Assignment {
    private Book[] books;
    private int count;

    public Assignment(int size) {
        books = new Book[size];
        count = 0;
    }

    public void addBook(String title, int ISBN, String authorName, int publishedYear) {
        if (count < books.length) {
            books[count++] = new Book(title, ISBN, authorName, publishedYear);
        } else {
            System.out.println("Array is full, cannot add more books");
        }
    }

    public void displayBooks() {
        for (int i = 0; i < count; i++) {
            books[i].asString();
        }
    }

    public static void main(String[] args) {
        Assignment library = new Assignment(10);
        library.addBook("Harry Potter", 123, "J K Rowling", 1997);
        library.addBook("Percy Jackson", 422, "Rick Riordan", 2005);

        System.out.println("All Books:");
        library.displayBooks();
    }
}
```

```
    2)  ;
class Employee {
    private String name;
    private int id;
    private String role;
    private int salary;

    Employee() {}

    public Employee(int id, String name, String role, int salary) {
        this.id = id;
        this.name = name;
        this.role = role;
        this.salary = salary;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public int getId() {
        return id;
    }

    public void setId(int id) {
        this.id = id;
    }

    public String getRole() {
        return role;
    }

    public void setRole(String role) {
        this.role = role;
    }

    public int getSalary() {
        return salary;
    }
```

```java
    public void setSalary(int salary) {
        this.salary = salary;
    }

    @Override
    public String toString() {
        return "Employee [name=" + name + ", id=" + id + ", role=" + role + ", salary=" + salary + "]";
    }
}

public class Assignment {
    private Employee[] employees;
    private int count;

    public Assignment(int size) {
        employees = new Employee[size];
        count = 0;
    }

    public void addEmployee(int id, String name, String role, int salary) {
        if (count < employees.length) {
            employees[count++] = new Employee(id, name, role, salary);
        } else {
            System.out.println("Array is full, cannot add more employees");
        }
    }

    public void displayEmployees() {
        for (int i = 0; i < count; i++) {
            System.out.println(employees[i].toString());
        }
    }

    public static void main(String[] args) {
        Assignment company = new Assignment(10);
        company.addEmployee(1, "Dinesh", "Developer", 2000);
        company.addEmployee(2, "Suresh", "Manager", 3000);

        System.out.println("All Employees:");
        company.displayEmployees();
    }
}
```

3)

```java
class Movie {
    private String title;
    private String genre;
    private int releaseYear;
    private int rating;
    private String director;

    public Movie(String title, String genre, int releaseYear, int rating, String director) {
        this.title = title;
        this.genre = genre;
        this.releaseYear = releaseYear;
        this.rating = rating;
        this.director = director;
    }

    public String getTitle() {
        return title;
    }

    public void setTitle(String title) {
        this.title = title;
    }

    public String getGenre() {
        return genre;
    }

    public void setGenre(String genre) {
        this.genre = genre;
    }

    public int getReleaseYear() {
        return releaseYear;
    }

    public void setReleaseYear(int releaseYear) {
        this.releaseYear = releaseYear;
    }

    public int getRating() {
        return rating;
    }

    public void setRating(int rating) {
```

```java
        this.rating = rating;
    }

    public String getDirector() {
        return director;
    }

    public void setDirector(String director) {
        this.director = director;
    }

    @Override
    public String toString() {
        return "Movie [title=" + title + ", genre=" + genre + ", releaseYear=" + releaseYear
                + ", rating=" + rating + ", director=" + director + "]";
    }
}

public class Assignment {
    private Movie[] movies;
    private int count;

    public Assignment(int size) {
        movies = new Movie[size];
        count = 0;
    }

    public void addMovie(String title, String genre, int releaseYear, int rating, String director) {
        if (count < movies.length) {
            movies[count++] = new Movie(title, genre, releaseYear, rating, director);
        } else {
            System.out.println("Array is full, cannot add more movies");
        }
    }

    public void displayMovies() {
        for (int i = 0; i < count; i++) {
            System.out.println(movies[i].toString());
        }
    }

    public static void main(String[] args) {
        Assignment movieCollection = new Assignment(10);
        movieCollection.addMovie("Vikram", "Thriller", 2022, 8, "Lokesh");
```

```java
        movieCollection.addMovie("Inception", "Sci-Fi", 2010, 9, "Christopher Nolan");

        System.out.println("All Movies:");
        movieCollection.displayMovies();
    }
}
```