

```
import static org.junit.jupiter.api.Assertions.*;
import org.junit.jupiter.api.AfterEach;
import org.junit.jupiter.api.BeforeEach;
import org.junit.jupiter.api.Test;
import java.util.ArrayList;

/**
 * The test class PhysicalBookTest.
 *
 * @author Deepak
 * @version 30.11.2023
 */
public class PhysicalBookTest
{
    /**
     * Testing the method getIsbn.
     */
    @Test
    public void getIsbn()
    {
        Author author1 = new Author();
        PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");
        assertEquals("ABC123", physical1.getIsbn());
    }

    /**
     * Testing the method setIsbn.
     */
    @Test
    public void setIsbn()
    {
        Author author1 = new Author();
        PhysicalBook physical1 = new PhysicalBook(author1, "AB123", "BookTitle");
        physical1.setIsbn("ABC123");
    }

    /**
     * Testing the method getBookTitle.
     */
    @Test
    public void getBookTitle()
    {
        Author author1 = new Author();
        PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");
        assertEquals("BookTitle", physical1.getBookTitle());
    }

    /**
     * Testing the method setBookTitle.
     */
}
```

```
 */
@Test
public void setBookTitle()
{
    Author author1 = new Author();
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "Btitle");
    physical1.setBookTitle("BookTitle");
}

/**
 * Testing the method getAuthor.
 */
@Test
public void getAuthor()
{
    Author author1 = new Author();
    author1.showDetails();
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");
    assertEquals("", "", "");
}

/**
 * Testing the method setAuthor.
 */
@Test
public void setAuthor()
{
    Author author1 = new Author();
    author1.setAuthorFirstName("Deepak");
    author1.setAuthorSurname("Rawal");
    author1.setAuthorAddress("Author Address");
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");
    physical1.setAuthor(author1);
}

/**
 * Testing the method getLibMember.
 */
@Test
public void getLibMember()
{
    LibraryMember libraryM1 = new LibraryMember("Libmember1", "Deepak", "member
contact");
    Author author1 = new Author();
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");
    libraryM1.printDetails();
    assertEquals(null, physical1.getLibMember());
}

/**
```

```
* Testing the method setLibMember.  
*/  
@Test  
public void setLibMember()  
{  
    Author author1 = new Author();  
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");  
    LibraryMember libraryM1 = new LibraryMember("libmember1", "Deepak",  
"memcontact");  
    libraryM1.setMemberId("mem1");  
    libraryM1.setMemberName("member");  
    libraryM1.setMemberContact("memcontact");  
    physical1.setLibMember(libraryM1);  
}  
  
/**  
 * Testing the method addDamage.  
 */  
@Test public void addDamage()  
{  
    Author author1 = new Author();  
    PhysicalBook physical1 = new PhysicalBook(author1, "ABC123", "BookTitle");  
    physical1.addDamage("missing pages");  
    physical1.addDamage("untidy");  
    ArrayList damages = physical1.getDamages();  
    assertEquals(2, damages.size());  
    assertTrue(damages.contains("missing pages"));  
    assertTrue(damages.contains("untidy"));  
}  
}
```