Summative assessment – Answers

## Object-oriented programming. To complete this assessment you should have access to the “library tracker” example program

Q1. Which of the following are examples of **classes** used in the example program? (Choose all that apply)

* book.py
* **User**
* **Library**
* jane
* hunger\_games

Q2. Which of the following are examples of **objects** used in the example program? (Choose all that apply)

* book.py
* **jane**
* Library
* User
* **hunger\_games**

Q3. Which of the following is a **method** in the Book class?

1. title
2. **rent\_out**
3. author
4. self

Q4. Which of the following is an example of an **attribute** in the Library class?

1. list\_books\_author
2. add\_user
3. **books**
4. \_\_init\_\_

Q5. The school library wants to add a new feature that will link the Users with their school library ID cards. The cards have an ID number that is a combination of letters and numbers e.g 15AG000345. They would like you to add this into the program. What would you need to add to store this new information?

1. A method to the Library class
2. A class called Student\_ID
3. **An attribute in the User class**
4. A method in the User class

Q6. To create a new object of the **Book** class which of the following lines of code would you use?

1. book\_object = Book.\_\_init\_\_(self)
2. book\_object = new Book
3. Book()
4. **book\_object = Book()**

Q7. To access the users attribute on an object of the library class called school\_library which of these lines of code would you use?

1. school\_library.users
2. **school\_library.get\_user()**
3. school\_library.get\_user
4. school\_library return users

Q8. To change the author attribute on an object of the class Book called twilight, which line of code would you use?

1. twilight.author = “Stephanie Meyer”
2. twilight.set\_author = “Stephanie Meyer”
3. twilight.get\_author(“Stephanie Meyer”)
4. **twilight.set\_author(“Stephanie Meyer”)**

Q9. Some of the classes are linked to one another through **association.** Which of the **attributes** of the Book class is an association with another class from the program?

1. title
2. author
3. genre
4. **current\_holder**

Q10. Which method inside the **User** class is designed to interact with another class?

1. **receive\_book()**
2. get\_author()
3. set\_email()
4. \_\_Init\_\_()

Q11. The library wants to make the books easier to sort through by categorising them as either “Fiction” or “Nonfiction”. They would like you to add to the program and create new classes to hold specific information about both of these types of book e.g Subject for Non-Fiction and Series for Fiction books.

1. Which principle of object-oriented programming would you use to achieve this new functionality?

|  |
| --- |
| **Inheritance** |

1. If you were to make a new class called NonFictionBook derived from the Book class, one would be a superclass and another a subclass - which label applies to which class?

|  |  |
| --- | --- |
| **Book** | superclass |
| **NonFictionBook** | subclass |

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