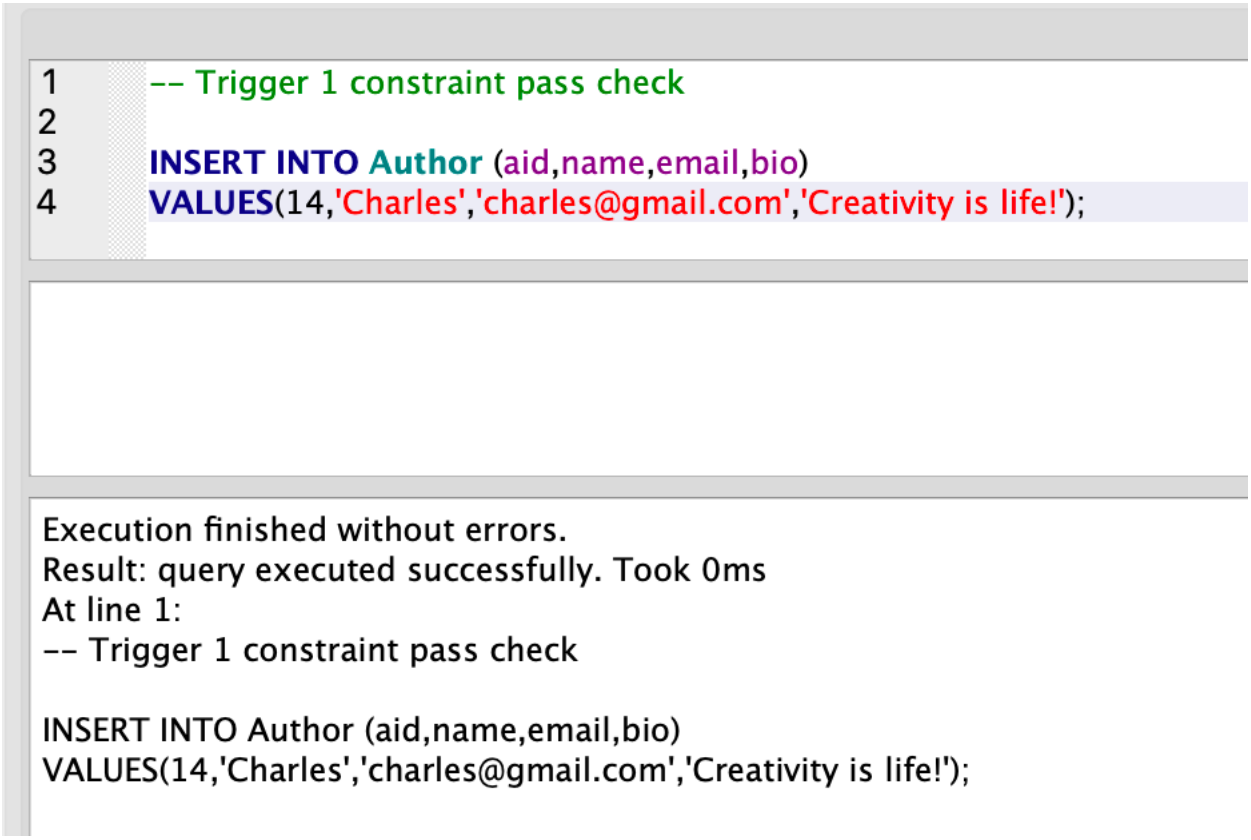
Assignment-6: Build Triggers

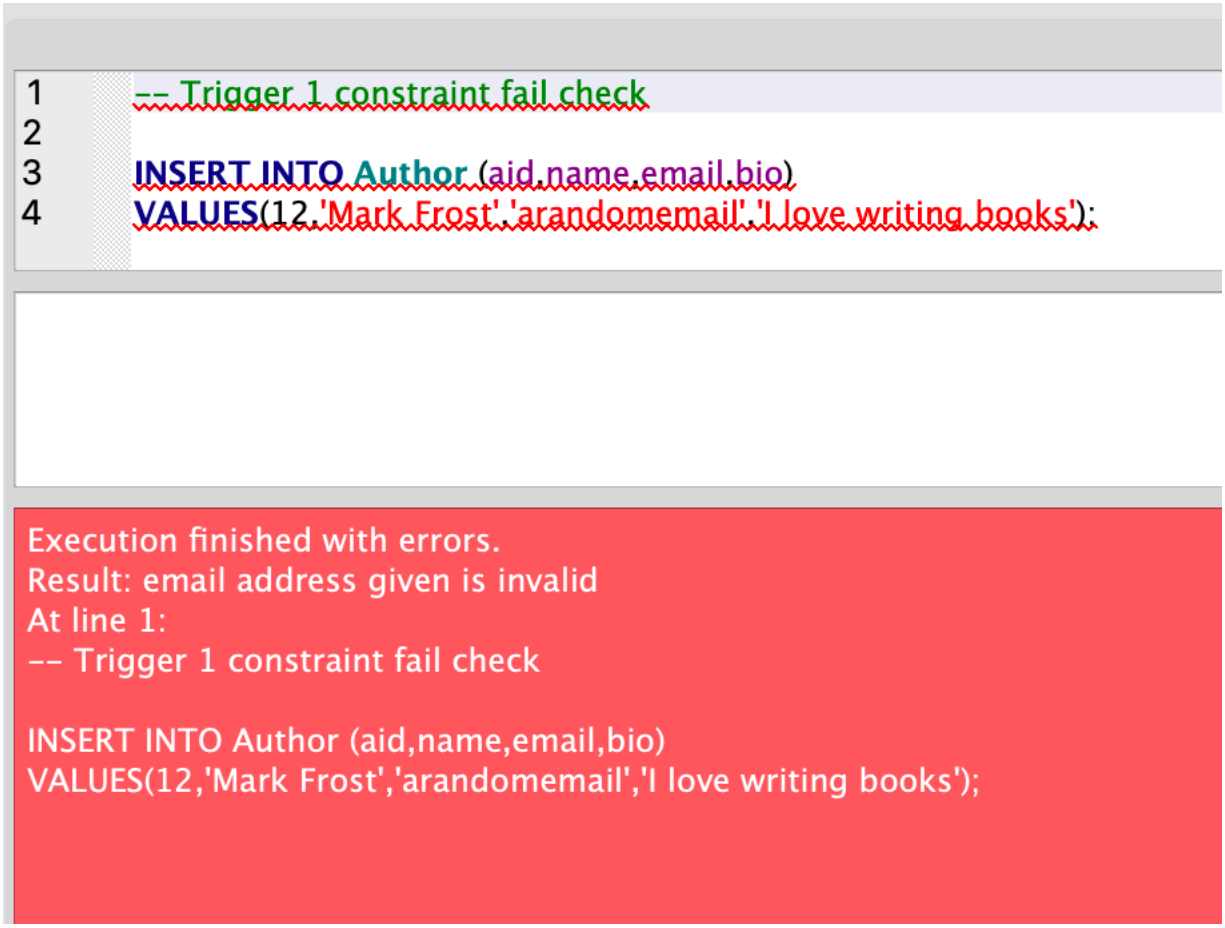
I have built the following two triggers:

- ***Trigger 1 (domain constraint check)***: I have built trigger 1 to validate the email address of the author before inserting a new author into the author table. For this case, have used a BEFORE INSERT trigger. To validate the email, I used the LIKE operator to determine whether the email is valid or not based on the email pattern. If the email is not valid, the RAISE function aborts the insert and issues an error message.

The screenshot below shows the case where a ***valid email*** id of the form '%_@_%.__%' was given in the insert statement and hence the insert was successful.



The screenshot below shows the case where an ***invalid email*** id that does not conform to the form '%_@_%.__%' was given in the insert statement and hence the trigger ensured that insert did not take place and an error message *"email address given is invalid"* was issued by the trigger.



- ***Trigger 2 (derived attribute calculation):*** I have built trigger 2 to calculate the derived attribute 'total_book_count' derived from the sum of the attributes 'ebook_count' and 'paperback_count' in order to get a count of the total books of the two types of books that the author has authored. For this case, have used an AFTER INSERT trigger.

The working of the trigger can be seen in the screenshot below, where I have given only the 'ebook_count' and 'paperback_count' values in the insert statement and the trigger then UPDATES Author and SET the derived attribute 'total_book_count'

```
1  -- Trigger 2 check
2
3  INSERT INTO Author (aid,name,email,bio,ebook_count,paperback_count)
4  VALUES(15,'Sidney Sheldon','sydney@yahoo.com','I write thrillers!',22,46),(34,'Enid','enid@hotmail.com','Hi!',12,65),(90,'J.K Rowling','rowling@edu.com','I write HP!',8,17) ;
5  SELECT * FROM Author WHERE Author.aid = 15 OR Author.aid = 34 OR Author.aid = 90;
```

	aid	name	email	bio	ebook_count	paperback_count	total_book_count
1	15	Sidney Sheldon	sydney@yahoo.com	I write thrillers!	22	46	68
2	34	Enid	enid@hotmail.com	Hi!	12	65	77
3	90	J.K Rowling	rowling@edu.com	I write HP!	8	17	25

```
Execution finished without errors.
Result: 3 rows returned in 10ms
At line 5:
SELECT * FROM Author WHERE Author.aid = 15 OR Author.aid = 34 OR Author.aid = 90;
```

Note: I have updated (as allowed in the question) the database in Assignment 3 such that the Author table now has the additional attributes 'email', 'total_book_count', 'ebook_count' and 'paperback_count' in order to implement the above triggers.