

Innovation

4.1.2 – It wasn't explicitly stated but I added an 'ELSE' clause to my function to return the original continent name for all continents that weren't renamed.

4.2 – We were only supposed to comment on the existing database and its schema. I elaborated by proposing a better set up, as well as writing a MySQL query to get initial data from my new database.

4.4 – I wrote a program in 3 python files that fully covers all requirements of the project. In addition to this, I added the following improvements:

1. In the connect() function in the dbConnect file the user is asked for a user name and password
2. Throughout the application, all data is validated and all input errors should be caught to ensure the program runs smoothly. Examples of this can be found in the following function:
 - dbConnect.connect()
 - main.return_city_pop()
 - main.new_city()
 - main.get_cars()
 - main.new_cars()
 - main.countries_by_pop()
3. Each function that outputs a table of data has been tidied up using the *ljust* and *rjust* string functions to ensure that each column is exactly the same width, making the output much easier to read. I have also added a header row to each table output so the user can tell what data they are looking at. An example of this using the output of option 7 (showing all countries with a population greater than 5 million) is shown below:

```
Enter Population: 5000000
```

COU	Country Name	Continent	Population	HeadOfState
AFG	Afghanistan	Asia	22720000	Mohammad Omar
AGO	Angola	Africa	12878000	José Eduardo dos Santos
ARG	Argentina	South America	37032000	Fernando de la Rúa
AUS	Australia	Oceania	18886000	Elisabeth II
AUT	Austria	Europe	8091800	Thomas Klestil
AZE	Azerbaijan	Asia	7734000	Heydər Əliyev
BDI	Burundi	Africa	6695000	Pierre Buyoya
BEL	Belgium	Europe	10239000	Albert II
BEN	Benin	Africa	6097000	Mathieu Kérékou
BFA	Burkina Faso	Africa	11937000	Blaise Compaoré
BGD	Bangladesh	Asia	129155000	Shahabuddin Ahmad
BGR	Bulgaria	Europe	8190900	Petar Stojanov
BLR	Belarus	Europe	10236000	Aljaksandr Lukašenka