Evaluation – Gym Software

The solution that I have created meets all the requirements of the brief. The solution that I have created allows the user to enter several values such as weight, gender and age. These then allow for the solution to make several calculations that can work out several factors such as BMI, BMR and the BMI category. The solution will then output these calculations and information so the user knows what there aiming for.

The program includes error checking on each of the inputs through the use of while loops and if statements that ensure only valid inputs will allow the program to progress. I also used integers to represent the exercise levels to improve the overall efficiency of the program as the program will check for a set range of integers rather than strings. The program also uses commands such as clear that ensure the console doesn't get filled with error messages and program is at the highest quality possible.

The variable names that I used for the program where appropriate for their intended purpose. For example I used the variable gender for the gender input, the BMI variable for the BMI calculation and the variable option for the multi-choice exercise level. For the inputs I sued a mix of strings and integers depending on what the variable correlated to. For example I used string variable for the gender and an input variable for the height, this allowed for the error checking to be efficient and ensured that the user would only be able to enter valid inputs. For some variables such as the BMI I set them as a float as it would allow me to use the BMI later in the program to display the user's category.

I also chose to display the outputs at the end of the program as this wold ensure I had all the information to create the calculations so the outputs would meet the client brief. I also ensured that the outputs were logically sequenced, for example I put the BMI category after the BMI and directly before the target BMI therefore improving the overall quality and efficiency of the program.

I also used several variables that were calculations of previous variables such as height. I also made changes to the program during the development process as I created variables such as height squared when I was attempting to make the program efficient. as this would mean when I'm doing the calculations further into the code for the BMI/BMR without making the calculation too long.