As in the past, comments in RED, input in BLUE and output in BLACK. I don't have much to say about this program. It was all very straight-forward. The HashMap is an easy structure to work with.

The only difficulty was figuring out how to iterate the HashMap for the showAll method. It doesn't implement the Iterator interface.

How many random entries to start?

5

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

1

Please enter student data.

First the name:

sdfjkghdfkh

Now the id

s38503840

Finally, the gpa

2.5

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

5

sdfjkghdfkh s38503840 2.5

Arturo s68255099 3.26

Kirsten s35116092 2.18

Sydney s83959938 2.04

Anissa s32628512 2.36

Jimmy s57119403 3.47

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

2

Please input a Student Number to search for

s32628512

Anissa s32628512 2.36

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

4

Input a Student Number of a record to update

s32628512

Please enter student data.

First the name:

sdlgjsdhfg

Now the id

s82047294

Finally, the gpa

1.5

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

5

sdfjkghdfkh s38503840 2.5

Arturo s68255099 3.26

Kirsten s35116092 2.18

Sydney s83959938 2.04

sdlgjsdhfg s82047294 1.5

Jimmy s57119403 3.47

Please enter one of the following:

-----------------------------------------------

1 to insert a new student's information

2 to fetch and output a student's information

3 to delete a student's information

4 to update a student's information

5 to output the list

6 to exit the program

-----------------------------------------------

6