

GPAcode.java

```

1 package cs175lab;
2
3 import java.util.Scanner;
4
5 public class GPAcode {
6
7     public static void main(String[] args) {
8
9         Scanner sc = new Scanner(System.in);
10
11         //grades and their values
12         //A = 4.00
13         //Aminus = 3.70
14         //Bplus = 3.33
15         //B = 3.00
16         //Bminus = 2.70
17         //Cplus = 2.30
18         //C = 2.00
19         //Cminus = 1.70
20         //Dplus = 1.30
21         //D = 1.00
22         //Dminus = 0.70
23
24         double decimalGrade = 0.0;
25
26         double gradePoints = 0.0;
27
28         double totalNumberGrade = 0.0;
29
30         int totCreditHours = 0;
31
32         double GPA = 0;
33
34
35         String courseInformation = null;
36
37         System.out.println("Enter the number of classes you have taken: ");
38         String classTot = sc.nextLine();
39         int classTot1=Integer.parseInt(classTot);
40
41
42
43
44         for (int i = 1; i <= classTot1; i++ )
45         { //for start
46             System.out.print("Enter course information separated by commas "
47                 + "(title, credit hours, letter grade) or type Q to quit: ");
48             courseInformation = sc.next();
49
50             //getting to split user input
51             String [] information = courseInformation.split(",");
52
53             String courseInput = information[0];
54
55             int hoursInput = Integer.parseInt(information[1]);
56
57             String letterGrade = information[2];

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58
59     if(courseInformation.equals("Q"))
60     { //if start
61         break;
62     } //if stop
63
64
65     // grade to numeric value
66     if(letterGrade.equals("A"))
67     { //if start
68
69         decimalGrade = 4.0;
70
71     } //if stop
72
73     else if(letterGrade.equals("A-"))
74     { // else if start
75
76         decimalGrade = 3.7;
77
78     }
79
80     else if(letterGrade.equals("B+"))
81     { // else if start
82
83         decimalGrade = 3.3;
84
85     }
86
87     else if(letterGrade.equals("B"))
88     { // else if start
89
90         decimalGrade = 3.0;
91
92     }
93
94     else if(letterGrade.equals("B-"))
95     { // else if start
96
97         decimalGrade = 2.7;
98
99     }
100
101     else if(letterGrade.equals("C+"))
102     { // else if start
103
104         decimalGrade = 2.3;
105
106     }
107
108     else if(letterGrade.equals("C"))
109     { // else if start
110
111         decimalGrade = 2.0;
112
113     }
114

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115     else if(letterGrade.equals("C-"))
116     { // else if start
117
118         decimalGrade = 1.7;
119
120     }
121
122     else if(letterGrade.equals("D+"))
123     { // else if start
124
125         decimalGrade = 1.3;
126
127     }
128
129     else if(letterGrade.equals("D"))
130     { // else if start
131
132         decimalGrade = 1.0;
133
134     }
135
136     else if(letterGrade.equals("D-"))
137     { // else if start
138
139         decimalGrade = 0.7;
140
141     }
142
143     else if(letterGrade.equals("F") || letterGrade.equals("WF"))
144     { // else if start
145
146         decimalGrade = 0.0;
147
148     }
149
150     else if(letterGrade.equals("P") || letterGrade.equals("NP") ||
letterGrade.equals("I"))
151     { // else if start
152
153         hoursInput = 0;
154
155     } //else stop
156
157     else
158     { // else start
159
160         break;
161
162     } // else stop
163
164     gradePoints += (decimalGrade * hoursInput);
165
166     totCreditHours += hoursInput;
167
168     totalNumberGrade += decimalGrade;
169
170

```

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```
171         System.out.println("Course title: " + courseInput + " | Amount of credit  
hours: " + hoursInput + " | Your letter grade: "  
172             + letterGrade + " | " + "Total grade points: " + totalNumberGrade);  
173     }  
174  
175  
176  
177         GPA = gradePoints / totCreditHours;  
178         System.out.println("Your total GPA is " + GPA);  
179  
180     } //class  
181 } //void  
182  
183
```