```
1  ************************************************
2  * PROGRAMMED BY : Andrew Gharios
3  * CLASS         : CS1B
4  * SECTION       : MTWTH 5pm
5  * LAB #1        : CS1A Review Ц Theme Park Day Planner
6  ************************************************
7
8  Welcome to the Theme Park Planner! Please input each kid's information.
9
10 Kid #1:
11 What is your kid's name?       Austin Vaday
12 How old is the kid?            14
13 Vegetarian (Y/N)?              Y
14 Does he/she like cheese (Y/N)? Y
15
16 Austin will be going on to the Roller Coaster and the Zip Line.
17 Pack a Cheese Pizza for Austin!
18
19
20 Kid #2:
21 What is your kid's name?       Andrew Daniles
22 How old is the kid?            5
23 Vegetarian (Y/N)?              Y
24 Does he/she like cheese (Y/N)? N
25
26 Andrew will be going on to the Tea Cups and will be playing Laser Tag.
27 Pack a Happy Garden meal for Andrew!
28
29
30 Kid #3:
31 What is your kid's name?       Anthony Ramirez
32 How old is the kid?            16
33 Vegetarian (Y/N)?              N
34 Does he/she like cheese (Y/N)? N
35
36 Anthony will be going on to the Roller Coaster and the Zip Line.
37 Pack a Hamburger for Anthony!
38
39
40 Kid #4:
41 What is your kid's name?       Erik Karlsson
42 How old is the kid?            4
43 Vegetarian (Y/N)?              N
44 Does he/she like cheese (Y/N)? Y
45
46 Erik will be going on the Ferris Wheel and will be visiting the Sheep
     Petting Zoo.
47 Pack a Cheeseburger for Erik!
48
49
50 Kid #5:
51 What is your kid's name?       Daniel Bumblebee
52 How old is the kid?            2
```

```
Vegetarian (Y/N)?              Y
Does he/she like cheese (Y/N)? Y

Daniel will be going on the Ferris Wheel and will be visiting the Sheep
  Petting Zoo.
Pack a Cheese Pizza for Daniel!


Kid #6:
What is your kid's name?       Swaggy P.
How old is the kid?            16
Vegetarian (Y/N)?              Y
Does he/she like cheese (Y/N)? N

Swaggy will be going on to the Roller Coaster and the Zip Line.
Pack a Happy Garden meal for Swaggy!


Kid #7:
What is your kid's name?       Inigo Montoya
How old is the kid?            3
Vegetarian (Y/N)?              Y
Does he/she like cheese (Y/N)? N

Inigo will be going on the Ferris Wheel and will be visiting the Sheep
  Petting Zoo.
Pack a Happy Garden meal for Inigo!


Kid #8:
What is your kid's name?       Daniel Andrews
How old is the kid?            13
Vegetarian (Y/N)?              N
Does he/she like cheese (Y/N)? Y

Daniel will be going on to the Roller Coaster and the Zip Line.
Pack a Cheeseburger for Daniel!


Kid #9:
What is your kid's name?       Amanda Kissenhugg
How old is the kid?            7
Vegetarian (Y/N)?              N
Does he/she like cheese (Y/N)? N

Amanda will be going on to the Tea Cups and will be playing Laser Tag.
Pack a Hamburger for Amanda!


Kid #10:
What is your kid's name?       Dooby McFoosen
How old is the kid?            6
Vegetarian (Y/N)?              N
```

```
104 Does he/she like cheese (Y/N)? Y
105
106 Dooby will be going on to the Tea Cups and will be playing Laser Tag.
107 Pack a Cheeseburger for Dooby!
108
109
110 The total cost for the day is: $152.25
111 The average cost per kid is:   $13.84
112
```

```
1  /*****************************************************************************
2  * AUTHOR     : Andrew Gharios
3  * STUDENT ID : 1449366
4  * LAB #1     : CS1A Review - Theme Park Day
5  * CLASS      : CS1B
6  * SECTION    : MTWTH: 5pm
7  * DUE DATE   : 6/9/21
8  *****************************************************************************/
9
10 #include <iostream>
11 #include <iomanip>
12 using namespace std;
13
14 /*****************************************************************************
15 * Theme Park Day
16 *----------------------------------------------------------------------------
17 * This program will take 10 kid's name, age, if they are vegetarian and if they
18 * can east cheese. The program will then give a selection of rides and food
19 * items depending on the input. And at the end it will output the total cost
20 * and average cost for all kids.
21 *----------------------------------------------------------------------------
22 * INPUT:
23 * name       - Kid's name.
24 * age        - The kid's age.
25 * veggie - Wether the kid is vegetarian or not.
26 * cheese     - If the kid can eat cheese or not.
27
28 * OUTPUT:
29 * totalCost - total cost for all kids.
30 * avgCost   - Average cost for all kids.
31 *****************************************************************************/
32 int main()
33 {
34     /*************************************************************************
       ************************************************************************
       ******
35      * CONSTANTS
36      *
          ---------------------------------------------------------------------
          -----
37      * OUTPUT - USED FOR CLASS HEADING
38      *
```

```
         ------------------------------------------------------------------ ↵
           -----
39       * PROGRAMMER     : Programmer's Name
40       * CLASS          : Student's Course
41       * SECTION        : Class Days and Times
42       * LAB_NUM        : Lab Number (specific to this lab)
43       * LAB_NAME       : Title of the Lab
44       *                                                                   ↵
         ------------------------------------------------------------------ ↵
           -----
45       * INPUT_COL      : setw size for input column.
46                                                                           ↵
    ********************************************************************** ↵
    */
47
48      const char PROGRAMMER[] = "Andrew Gharios";
49      const char CLASS[] = "CS1B";
50      const char SECTION[] = "MTWTH 5pm";
51      const int  LAB_NUM = 1;
52      const char LAB_NAME[] = "CS1A Review – Theme Park Day Planner";
53
54      const int INPUT_COL = 31;
55      const int STRN_SIZE = 100;
56
57      char foodPref[STRN_SIZE]; // CALC & OUT - Food selection for kids.
58      char ridePref[STRN_SIZE]; // CALC & OUT - Attraction selection for    ↵
          kids.
59      char  name[STRN_SIZE];    // IN & OUT - Child's name.
60      int   age;                // IN & CALC - Child's age.
61      int   count;              // CALC - Kids count.
62      char  veggie;             // IN & CALC - If the child is vegetarian.
63      char  cheese;             // IN & CALC - If the child can eat chees.
64      float totalCost;          // CALC & OUT - Total cost for all kids.
65      float avgCost;            // CALC & OUT - Average cost for all kids.
66
67      cout << left;
68      cout << "************************************************\n";
69      cout << "* PROGRAMMED BY : " << PROGRAMMER << endl;
70      cout << "* " << setw(14) << "CLASS" << ": " << CLASS << endl;
71      cout << "* " << setw(14) << "SECTION" << ": " << SECTION << endl;
72      cout << "* LAB #" << setw(9) << LAB_NUM << ": " << LAB_NAME << endl;
73      cout << "************************************************\n\n";
74      cout << right;
75
76      totalCost = 0;
77      cout << "Welcome to the Theme Park Planner! Please input each kid\'s  ↵
          information.";
78      cout << endl << endl;
79
80      for (count = 1; count <= 10; count++)
81      {
82          cout << "Kid #" << count << ":";
83          cout << endl;
```

```
84          cout << left;
85
86          //name input
87          cout << setw(INPUT_COL) << "What is your kid's name?";
88          cin >> name;
89          cin.ignore(10000, '\n');
90
91          //age input
92          cout << setw(INPUT_COL) << "How old is the kid?";
93          cin >> age;
94          cin.ignore(10000, '\n');
95
96          //vegetarian input
97          cout << setw(INPUT_COL) << "Vegetarian (Y/N)?";
98          cin  >> veggie;
99          cin.ignore(10000, '\n');
100
101         //cheese input
102         cout << setw(INPUT_COL) << "Does he/she like cheese (Y/N)?";
103         cin.get(cheese);
104         cin.ignore(10000, '\n');
105
106         //ride preference
107         if (age > 12)
108         {
109             totalCost = totalCost + 20;
110             strncpy_s(ridePref, "will be going on to the Roller Coaster and
                    the Zip Line.", STRN_SIZE);
111         }
112         else if (age >= 5 && age <= 12)
113         {
114             totalCost = totalCost + 15;
115             strncpy_s(ridePref, "will be going on to the Tea Cups and will
                  be playing Laser Tag.", STRN_SIZE);
116         }
117         else
118         {
119             strncpy_s(ridePref, "will be going on the Ferris Wheel and will
                    be visiting the Sheep Petting Zoo.", STRN_SIZE);
120         }
121
122         //food preference
123         if (veggie == 'N' && cheese == 'Y')
124         {
125             totalCost = totalCost + 3.50;
126             strncpy_s(foodPref, "Pack a Cheeseburger for ", STRN_SIZE);
127         }
128         else if (veggie == 'N' && cheese == 'N')
129         {
130             totalCost = totalCost + 3.25;
131             strncpy_s(foodPref, "Pack a Hamburger for ", STRN_SIZE);
132         }
133         else if (veggie == 'Y' && cheese == 'Y')
```

```
134         {
135             totalCost = totalCost + 2.50;
136             strncpy_s(foodPref, "Pack a Cheese Pizza for ", STRN_SIZE);
137         }
138         else
139         {
140             totalCost = totalCost + 1.75;
141             strncpy_s(foodPref, "Pack a Happy Garden meal for ",
                  STRN_SIZE);
142         }
143
144         cout << endl;
145         cout << name     << " "  << ridePref << endl;
146         cout << foodPref << name << "!";
147         cout << endl     << endl << endl;
148     }
149
150     avgCost = totalCost / count;
151     cout << setprecision(2);
152     cout << fixed;
153     cout << setw(INPUT_COL) << "The total cost for the day is:" << "$" <<
        totalCost << endl;
154     cout << setw(INPUT_COL) << "The average cost per kid is:  " << "$" <<
        avgCost << endl;
155
156     return 0;
157 }
```