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1 *****
2 *   PROGRAMMED BY : Carlos Aguilera
3 *   CLASS         : CS1B
4 *   SECTION       : MW: 7:30p - 9:50p
5 *   LAB #1        : Theme Park Day Planner
6 *****
7
8 Kid #:1
9 What is your kid's name?   Austin Vaday
10 How old is the kid?       14
11 Vegetarian (Y/N)         y
12 Does he/she like cheese?  y
13
14 Austin will be going on the Roller Coaster and the Zip line.
15 Pack a cheese pizza for Austin
16
17
18 Kid #:2
19 What is your kid's name?   Andrew Daniels
20 How old is the kid?        5
21 Vegetarian (Y/N)          y
22 Does he/she like cheese?   n
23
24 Andrew will be going on the Tea Cups and will be playing Lazer Tag.
25 Pack a Happy Garden meal for Andrew
26
27
28 Kid #:3
29 What is your kid's name?   Anthony Ramirez
30 How old is the kid?        16
31 Vegetarian (Y/N)          n
32 Does he/she like cheese?   n
33
34 Anthony will be going on the Roller Coaster and the Zip line.
35 Pack a hamburger for Anthony
36
37
38 Kid #:4
39 What is your kid's name?   Erik Karlsson
40 How old is the kid?        4
41 Vegetarian (Y/N)          n
42 Does he/she like cheese?   y
43
44 Erik will be going on the Ferris Wheel and will be visiting the Sheep Petting
   Zoo.
45 Pack a cheeseburger for Erik
46
47
48 Kid #:5
49 What is your kid's name?   Daniel Bumblebee
50 How old is the kid?        2
51 Vegetarian (Y/N)          y
52 Does he/she like cheese?   y
53
54 Daniel will be going on the Ferris Wheel and will be visiting the Sheep
   Petting Zoo.
55 Pack a cheese pizza for Daniel
56
57
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58 Kid #:6
59 What is your kid's name? Swaggy P.
60 How old is the kid? 16
61 Vegetarian (Y/N) y
62 Does he/she like cheese? n
63
64 Swaggy will be going on the Roller Coaster and the Zip line.
65 Pack a Happy Garden meal for Swaggy
66
67
68 Kid #:7
69 What is your kid's name? Inigo Montoya
70 How old is the kid? 3
71 Vegetarian (Y/N) y
72 Does he/she like cheese? n
73
74 Inigo will be going on the Ferris Wheel and will be visiting the Sheep
Petting Zoo.
75 Pack a Happy Garden meal for Inigo
76
77
78 Kid #:8
79 What is your kid's name? Daniel Andrews
80 How old is the kid? 13
81 Vegetarian (Y/N) n
82 Does he/she like cheese? y
83
84 Daniel will be going on the Roller Coaster and the Zip line.
85 Pack a cheeseburger for Daniel
86
87
88 Kid #:9
89 What is your kid's name? Amanda Kissenhug
90 How old is the kid? 7
91 Vegetarian (Y/N) n
92 Does he/she like cheese? n
93
94 Amanda will be going on the Tea Cups and will be playing Lazer Tag.
95 Pack a hamburger for Amanda
96
97
98 Kid #:10
99 What is your kid's name? Dooby McFoosen
100 How old is the kid? 6
101 Vegetarian (Y/N) n
102 Does he/she like cheese? y
103
104 Dooby will be going on the Tea Cups and will be playing Lazer Tag.
105 Pack a cheeseburger for Dooby
106
107
108 The total cost of the day is: 152.25
109 The average cost per kid is: 15.22

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1  /*****
2  *
3  * AUTHOR      : Carlos Aguilera
4  * STUDENT ID  : 1152562
5  * LAB # 1     : Theme Park Day Planner
6  * CLASS      : CS1B
7  * SECTION    : M-W
8  * DUE DATE   : 01.26.22
9  *****/
10 #include <iostream>
11 #include <iomanip>
12 #include <string>
13
14 /*****
15 * Theme Park Day Planner
16 * -----
17 * This program will output the class heading
18 * -----
19 * INPUT:
20 * name = name of the kid
21 * boolDetermination = whether user chose yes or no
22 * age = age of kid
23 * OUTPUT:
24 * totalCost = total cost of the day
25 *****/
26 void foodLogic(double *totalCost, bool isVegetarian, bool eatsCheese, const
std::string &name)
27 {
28     if(isVegetarian == false && eatsCheese == true) {//is not vegetarian and
eats cheese
29         std::cout << "Pack a cheeseburger for " << name << "\n";
30         *totalCost += 3.50;
31     }
32     else if(isVegetarian == false && eatsCheese == false) {//is not
vegetarian and doesn't eat cheese
33         std::cout << "Pack a hamburger for " << name << "\n";
34         *totalCost += 3.25;
35     }
36     else if(isVegetarian == true && eatsCheese == true) {//is vegetarian and
eats cheese
37         std::cout << "Pack a cheese pizza for " << name << "\n";
38         *totalCost += 2.50;
39     }
40     else if(isVegetarian == true && eatsCheese == false) {//is vegetarian and
doesn't eat cheese
41         std::cout << "Pack a Happy Garden meal for " << name << "\n";
42         *totalCost += 1.75;
43     }
44 }
45
46 void ageLogic(double *totalCost, const int &age, const std::string &name)
47 {
48     if(age > 0 && age < 5)//if age is greater than 0 and less than 5
49         std::cout << name << " will be going on the Ferris Wheel and will be
visiting the Sheep Petting Zoo.\n";
50     else if(age > 4 && age < 13) {//if age is greater than 4 and less than 13

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51         std::cout << name << " will be going on the Tea Cups and will be
playing Lazer Tag.\n";
52         *totalCost += 15;
53     }else if(age > 12) { //if age is greater than 12
54         std::cout << name << " will be going on the Roller Coaster and the
Zip line.\n";
55         *totalCost += 20;
56     }else
57         std::cout << "Invalid Age\n";//exception handling if invalid age
58 }
59 int main() {
60     /*****
61     * CONSTANTS
62     * -----
63     * OUTPUT - USED FOR CLASS HEADING
64     * -----
65     * PROGRAMMER : Programmer's Name
66     * CLASS      : Student's Course
67     * SECTION    : Class Days and Times
68     * LAB_NUM    : Lab Number (specific to this lab)
69     * LAB_NAME   : Title of the Lab
70     *****/
71     const char PROGRAMMER[] = "Carlos Aguilera";
72     const char CLASS[]      = "CS1B";
73     const char SECTION[]    = "MW: 7:30p - 9:50p";
74     const int LAB_NUM       = 1;
75     const char LAB_NAME[]   = "Theme Park Day Planner";
76
77     std::string name {};
78     char boolDetermination {};
79     int age {};
80     bool isVegetarian {}, eatsCheese {};
81     double totalCost {};
82
83
84     /*****
85     * OUTPUT - Class Heading
86     *****/
87     std::cout << std::left;
88     std::cout << "*****\n";
89     std::cout << "*   PROGRAMMED BY : " << PROGRAMMER << std::endl;
90     std::cout << "*   " << std::setw(14) << "CLASS" << ": " << CLASS <<
std::endl;
91     std::cout << "*   " << std::setw(14) << "SECTION" << ": " << SECTION <<
std::endl;
92     std::cout << "*   LAB #" << std::setw(9) << LAB_NUM << ": " << LAB_NAME <<
std::endl;
93     std::cout << "*****\n\n";
94     std::cout << std::right;
95
96     for(size_t i {1}; i <= 10; i++)
97     {
98         std::cout << "Kid #:" << i << "\n";
99         std::cout << std::left;
100        if(i != 1)
101            std::cin.ignore(100, '\n');//this is for the buffer but after its
ran once
102        std::cout << std::setw(27) << "What is your kid's name?";
103        std::getline(std::cin, name);

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104     name = name.substr(0, name.find(" ")); //using the substr method to
cut the string after first name
105     std::cout << std::setw(27) << "How old is the kid? ";
106     std::cin >> age;
107     std::cin.ignore(100, '\n'); //an ignore for .get
108     std::cout << std::setw(27) << "Vegetarian (Y/N) ";
109     std::cin.get(boolDetermination);
110
111     if(boolDetermination == 'Y' || boolDetermination == 'y')
112         isVegetarian = true;
113     else
114         isVegetarian = false;
115
116     std::cin.ignore(100, '\n');
117     std::cout << std::setw(27) << "Does he/she like cheese? ";
118     std::cin.get(boolDetermination);
119     std::cout << std::right << "\n";
120
121     if(boolDetermination == 'Y' || boolDetermination == 'y')
122         eatsCheese = true;
123     else
124         eatsCheese = false;
125
126     ageLogic(&totalCost, age, name);
127     foodLogic(&totalCost, isVegetarian, eatsCheese, name);
128     std::cout << "\n\n";
129 }
130 std::cout << "The total cost of the day is: " << std::fixed <<
std::setprecision(2) << totalCost << "\n";
131 std::cout << "The average cost per kid is: " << totalCost/10 << "\n";
132 }

```