A group of people are planning a camping trip. Each of them has agreed to pay for the trip and bring a food item. They need a program to organize it that allows them to add campers and assign food and payment information to each camper.

**Design:**

menu loop {

print list of options

prompt user for input

switch{

case 1:

add new camper

case 2:

add new food

case 3:

assign food to camper

case 4:

add payment for camper

case 5:

display all campers

case 6:

exit program

default:

display error message

}

}

assign food to camper {

prompt user for food name

search food vector for food name; display error if not found

prompt user for camper name

search camper vector for camper name; display error if not found

set camper food to food from vector

}

add payment for camper {

prompt user for camper name

search camper vector for camper name; display error if not found

prompt user for payment

set camper payment to user input

}

Class definitions:

In campers.h and food.h files

Unit test plan:

* Test adding campers
* Test adding food
* Test setting camper attributes
* Test invalid inputs

Documentation plan:

* Documentation style learned in class
* Potentially try Doxygen
* Manual will likely be a simple word doc with screenshots and description

Exception handling plan:

* In addition to input validation, a try-catch should be used on all user input to make sure the input is in the right format

Vector use plan:

* Always pass whole vectors by reference
* Probably copy values from food vector item to camper attribute rather than using pointers