Franklyn Gonzalez – October 28th – The code requests input for package weight and distance, calculates segments per 500 miles and outputs shipping charge.

**Assignment 4 – Programming**

**The shipping rates are based on per 500 miles shipped.  They are not pro-rated, i.e., 600 miles is the same rate as 900 miles or 1000 miles.**

**Package Weight                                                                                Rate per 500 miles shipped**

* Less than or equal to 10 pounds                                                   $3.00
* More than 10 pounds but less than or equal to 50 pounds           $5.00

If the shipping distance is more than 1000 miles, there is an additional charge of $10 per package shipped.

**IPO**

|  |  |  |
| --- | --- | --- |
| **Input**  Package weight, shipping rate, shipping charge, segment and distance | **Processing**  Calculate shipping rate, then calculate segments, finally calculate shipping charge | **Output**  Output shipping charge. |

**Test Case**

|  |  |  |
| --- | --- | --- |
| Input | Mileage | Rate per 500 miles shipped |
| Package weight1: 1.5 | 200 | $3 |
| Package weight 2: 5.6 | 1200 | $9 |
| Package weight 3: 11 | 2000 | $20 |
| Package weight 4: 38 | 9600 | $100 |
| Package weight 5: 55 | 345 | Sorry, we only ship 50lb or less |
| Package weight 6: 48 | 4500 | $45 |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

#include<stdio.h>

#include<stdlib.h>

main() {

double packageWeight, shippingRate, shippingCharge;

int segment, distance;

printf("Enter your mileage: \n");

scanf\_s("%i", &distance);

printf("Your distance is: %i \n", distance);

//distance == 500;

printf("Enter package weight: \n");

scanf\_s("%lf", &packageWeight);

printf(" Your package weight is: %lf \n\n", packageWeight);

// caculate the shippingRate

if (packageWeight <= 9) {

shippingRate = 3.0;

}

else if (packageWeight >= 10) {

shippingRate = 5.0;

}

if (packageWeight > 50) {

printf(" Sorry, we only ship 50lb or less");

}

// calculate segments

if (distance % 500 == 0)

segment = distance / 500;

else

segment = distance / 500 + 1;

printf(" %i segments\n\n", segment);

// Calculate shippingCharge

shippingCharge = shippingRate \* segment;

if (distance >= 1000) {

shippingRate + 10.0 == shippingCharge;

}

// Output shippingCharge

printf("The shipping cost is: $%.2lf\n\n", shippingCharge);

system("pause");

}

