Lab 6 Report

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EECS 20

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Code for Lab 6

```c
/* EECS20 Lab 6
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#include <stdio.h>


int main() {
   int A=98, B=198, C=298,a=99,b=199,c=299,in, Numb_Pass, cost;
   int cap[300]={0};
   int response; /* initializes all the variables for the loop*/

   while(1)
   {
      printf("Please Type 1 for \"Level A, $5/space/passenger\"\n");/* prints the levels of structure*/
      printf("Please Type 2 for \"Level B, $3/space/passenger\"\n");
      printf("Please Type 3 for \"Level C, $5/space/passenger\"\n");
      scanf("%d", &in);

      if (in==1||in==2||in==3){/*decides what to do with user input. For example pick level 1, 2, or3*/
         if(in==1){/*picks level A or 1*/
            if(A<100){
               cap[A]=1; /*changes parking spot to filled*/
               printf("Please enter the amount of passengers:\n");
               scanf(" %d", &Numb_Pass);
               cost=Numb_Pass*5;/*total passenger cost and calculation*/
               printf("Level A\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n", a,Numb_Pass,cost);
               a++;/*increments a for parking counter*/
               A++;/*increments A for the array portion*/
            }
            else{/*assigns a different level if full*/
               printf("Would you like to be assigned to a different level?\n Enter 1 for YES or 2 for NO\n");
               scanf(" %d", &response);
               if(response==1){
                  if(B<200){
                     cap[B]=1;
                     printf("Please enter the amount of passengers:\n");
                     scanf(" %d", &Numb_Pass);
                     cost=Numb_Pass*3;
                     printf("Level B\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",b,Numb_Pass,cost);
                     b++;
                     B++;
                  }
                  else if(C<300){
                     cap[C]=1;
                     printf("Please enter the amount of passengers:\n");
                     scanf(" %d", &Numb_Pass);
                     cost=Numb_Pass*2;
                     printf("Level C\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",c,Numb_Pass,cost);
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                c++;
                C++;
            }
            else{/*parking lot is full case*/
                printf("Parking Lot is full. Come again soon.\n");
            }
        }
        if(response==2){/*doesnt want other options*/
            printf("Parking Lot is full. Come again soon.\n");
        }
    }
}
if(in==2){
    if(B<200){/*picks level B or 2*/
        cap[B]=1;/*changes parking spot to filled*/
        printf("Please enter the amount of passengers:\n");
        scanf(" %d", &Numb_Pass);
        cost=Numb_Pass*3;/*total passenger cost and calculation*/
        printf("Level B\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",b,Numb_Pass,cost);
        b++;/*increments b for parking counter*/
        B++;/*increments B for the array portion*/
    }
    else{/*assigns a different level if full*/
        printf("Would you like to be assigned to a different level?\n Enter 1 for YES or 2 for NO\n");
        scanf(" %d", &response);
        if(response==1){
            if(A<100){
                cap[A]=1;
                printf("Please enter the amount of passengers:\n");
                scanf(" %d", &Numb_Pass);
                cost=Numb_Pass*5;
                printf("Park on level A at space %d, Number of passengers %d, Cost:$%d\n",a,Numb_Pass,cost);
                a++;
                A++;
            }
            else if (C<300){
                cap[C]=1;
                printf("Please enter the amount of passengers:\n");
                scanf(" %d", &Numb_Pass);
                cost=Numb_Pass*2;/*total passenger cost and calculation*/
                printf("Level C\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",c,Numb_Pass,cost);
                c++;
                C++;
            }
            else{/*parking lot is full case*/
                printf("Parking Lot is full. Come again soon.\n");
            }
        }
        if(response==2){/*doesnt want other options*/
            printf("Parking Lot is full. Come again soon.\n");
```
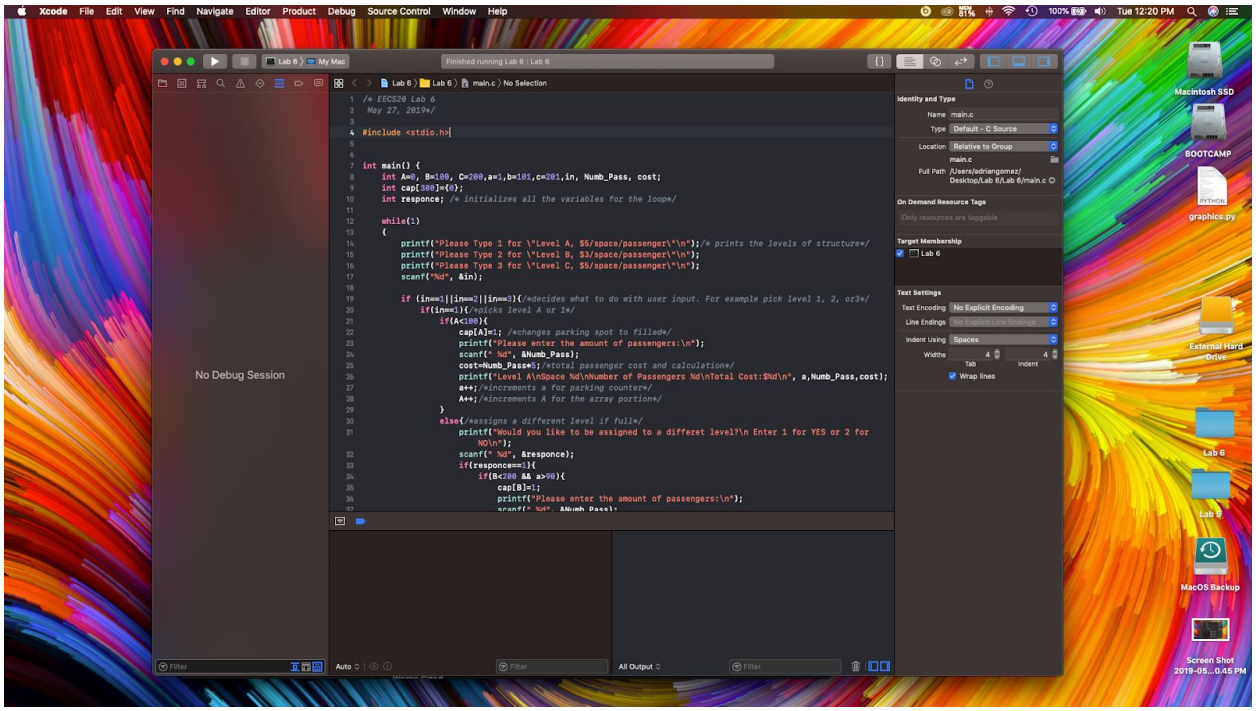

```
            }
        }
    }
    if(in==3){
        if(C<300){/*picks level C or 3*/
            cap[C]=1;/*changes parking spot to filled*/
            printf("Please enter the amount of passengers:\n");
            scanf(" %d", &Numb_Pass);
            cost=Numb_Pass*2;/*total passenger cost and calculation*/
            printf("Level C\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n", c,Numb_Pass,cost);
            c++;/*increments c for parking counter*/
            C++;/*increments C for the array portion*/
        }
        else{
            printf("Would you like to be assigned to a different level?\n Enter 1 for YES or 2 for NO\n");
            scanf(" %d", &response);
            if(response==1){
                if(B<200){
                    cap[B]=1;
                    printf("Please enter the amount of passengers:\n");
                    scanf(" %d", &Numb_Pass);
                    cost=Numb_Pass*3;
                    printf("Level B\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",b,Numb_Pass,cost);
                    b++;
                    B++;
                }
                else if(A<100){
                    cap[A]=1;
                    printf("Please enter the amount of passengers:\n");
                    scanf(" %d", &Numb_Pass);
                    cost=Numb_Pass*5;
                    printf("Level A\nSpace %d\nNumber of Passengers %d\nTotal Cost:$%d\n",a,Numb_Pass,cost);
                    a++;
                    A++;
                }
                else{/*parking lot is full case*/
                    printf("Parking Lot is full. Come again soon.\n");
                }
            }
            if(response==2){/*doesnt want other options*/
                printf("Parking Lot is full. Come again soon.\n");
            }
        }
    }
  }
}
```

Screenshot for BEFORE



Screenshot for AFTER