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|  | #include<stdio.h> |
|  | void main(){ |
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|  | char input,state; |
|  | char input\_arr[3][10]={"0c","5c","10c"}; |
|  | int input\_val[3]= {0,5,10}; |
|  | char state\_arr[4][10]={"No coin","Sum is 5","Sum is 10","Vend"}; |
|  | static int totat\_sum=0; |
|  |  |
|  | input=input\_arr[0]; |
|  | state=state\_arr[0]; |
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|  |  |
|  | switch(state){ |
|  | case state\_arr[0]:  printf("Current state is %s state\n",state\_arr[0]); |
|  | switch(input){ |
|  | case input\_arr[0]:  printf("You entered %s into the machine\n\t",input\_arr[0]); |
|  | total\_sum+= input\_val[0]; |
|  | printf("Moving to the new state %s",state\_arr[0]); |
|  | state=state\_arr[0]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[1]:  printf("You entered %s into the machine\n\t",input\_arr[1]); |
|  | total\_sum+= input\_val[1]; |
|  | printf("Moving to the new state %s",state\_arr[1]); |
|  | state=state\_arr[1]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[2]:  printf("You entered %s into the machine\n\t",input\_arr[2]); |
|  | total\_sum+= input\_val[2]; |
|  | printf("Moving to the new state %s",state\_arr[2]); |
|  | state=state\_arr[2]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | } |
|  | break; |
|  | case state\_arr[1]:  switch(input){ |
|  | case input\_arr[0]:  printf("You entered %s into the machine\n\t",input\_arr[0]); |
|  | total\_sum+= input\_val[0]; |
|  | printf("Moving to the new state %s",state\_arr[1]); |
|  | state=state\_arr[1]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[1]:  printf("You entered %s into the machine\n\t",input\_arr[1]); |
|  | total\_sum+= input\_val[1]; |
|  | printf("Moving to the new state %s",state\_arr[2]); |
|  | state=state\_arr[2]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[2]:  printf("You entered %s into the machine\n\t",input\_arr[2]); |
|  | total\_sum= input\_val[0]; |
|  | printf("Here is your bottle of coke...\n\n\n\t"); |
|  | printf("Moving to the new state %s",state\_arr[0]); |
|  | state=state\_arr[0]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | } |
|  | break; |
|  | case state\_arr[2]:  switch(input){ |
|  | case input\_arr[0]:  printf("You entered %s into the machine\n\t",input\_arr[2]); |
|  | total\_sum+= input\_val[0]; |
|  | printf("Moving to the new state %s",state\_arr[2]); |
|  | state=state\_arr[2]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[1]:  printf("You entered %s into the machine\n\t",input\_arr[1]); |
|  | total\_sum= input\_val[0]; |
|  | printf("Here is your bottle of coke...\n\n\n\t"); |
|  | printf("Moving to the new state %s",state\_arr[0]); |
|  | state=state\_arr[0]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
|  | case input\_arr[2]:  printf("You entered %s into the machine\n\t",input\_arr[2]); |
|  | total\_sum= input\_val[1]; |
|  | printf("Here is your bottle of coke...\n\n\n\t"); |
|  | printf("Moving to the new state %s",state\_arr[1]); |
|  | state=state\_arr[1]; |
|  | input=input\_arr[rand()%4]; |
|  | break; |
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|  | } |
|  | break; |
|  |  |
|  | } |