#include <LiquidCrystal\_I2C.h>  
LiquidCrystal\_I2C lcd(0x3F, 16, 2);  // set the LCD address to 0x27 for a 16 chars and 2 line display  
  
#include <SoftwareSerial.h>  
SoftwareSerial mySerial(0, 1); //Rx, Tx  
  
char j = 0, x;  
char Card\_No[13], card = 0;  
char rfid\_N0\_1[] = "0800A694F5CF",  
     rfid\_N0\_2[] = "0800A6956B50",  
     rfid\_N0\_3[] = "0800A45F9162",  
     rfid\_N0\_4[] = "0800A4D3ED92",  
     rfid\_N0\_5[] = "0B00284BABC3",  
     rfid\_N0\_6[] = "0B00286287C6";  
       
int a = 0, b = 0, c = 0, d = 0, total = 0;  
   
void setup()  
{  
  Serial.begin(9600);  
  
  mySerial.begin(9600);  
   
  lcd.init();  
  lcd.backlight();  
  
  lcd.setCursor(0, 0);

lcd.print("  SMART TROLLEY ");  
  delay(2000);  
  lcd.clear();  
  delay(200);  
}  
  
void loop()  
{  
  
 if(card == 1)  
 {  
  card = 0;  
  
  Serial.println("User 1 - Authorised - Permission Granted");  
  lcd.setCursor(0, 0); lcd.print(" User 1 Access  ");  
  lcd.setCursor(0, 1); lcd.print("    Granted     ");  
   
  delay(500);  
 }  
   
 else if(card == 2)  
 {  
  card = 0;  
  
  Serial.println("User 2 - Authorised - Permission Granted");  
  lcd.setCursor(0, 0); lcd.print(" User 2 Access  ");  
  lcd.setCursor(0, 1); lcd.print("    Granted     ");  
   
  delay(500);  
 }  
   
 else if(card == 3)  
 {  
  card = 0;  
  
  Serial.println("Card 1 - Apple (Price: 80/kg)");  
  lcd.setCursor(0, 0); lcd.print("Apple: 80.00    ");  
   
  a = 80;  
  d = a;  
  total = total + d;  
   
  delay(500);  
  }  
   
 else if(card == 4)  
 {  
  card = 0;  
  
  Serial.println("Card 2 - Orange (Price: 70/kg)");  
  lcd.setCursor(0, 0); lcd.print("Orange: 70.00   ");  
  
  b = 70;  
  d = b;  
  total = total + d;  
  
  delay(500);  
 }  
   
 else if(card == 5)  
 {  
  card = 0;  
  
  Serial.println("Card 3 - Banana (Price: 60/kg)");  
  lcd.setCursor(0, 0); lcd.print("Banana: 60.00   ");  
  
  c = 60;  
  d = c;  
  total = total + d;  
  
  delay(500);  
 }  
  
 else if(card == 6)  
 {  
  card = 0;  
  
  Serial.println("Unauthorised User - Permission Not Granted");  
  lcd.setCursor(0, 0); lcd.print("UnauthorizedUser");  
  lcd.setCursor(0, 1); lcd.print(" Access Denied  ");  
   
  delay(500);  
 }  
   
 if(total > 0)  
 {  
 Serial.print("Total Bill Amount: ₹ ");  
 Serial.println(total);  
  
 lcd.setCursor(0, 1);

lcd.print("Total Bill: ");

lcd.print(total);

lcd.print("   ");    
 delay(100);  
 }  
  
 if(Serial.available() > 0)  
 {  
  x = Serial.read();  
  
  //Serial.write(x);    
  
  Card\_No[j] = x;  
     
  j++;  
     
  if(j == 12)      
  {    
   Card\_No[j] = '\0';  
       
   j = 0;  
  
   card = 0;  
       
        if(!strcmp(rfid\_N0\_1,Card\_No))card = 1;  
   else if(!strcmp(rfid\_N0\_2,Card\_No))card = 2;  
   else if(!strcmp(rfid\_N0\_3,Card\_No))card = 3;  
   else if(!strcmp(rfid\_N0\_4,Card\_No))card = 4;  
   else if(!strcmp(rfid\_N0\_5,Card\_No))card = 5;  
   else if(!strcmp(rfid\_N0\_6,Card\_No))card = 6;    
                                 else card = 9;  
  }  
 }  
  
 delay(10);  
}