#include <SD.h>  
File myFile;  
#include <SPI.h>  
#include <MFRC522.h>  
MFRC522 mfrc522(10, 9);  
int x = 0;  
byte sel = 0;  
byte c1 = 0;  
byte c2 = 0;  
byte c3 = 0;  
String status = "";  
String cconteudo = "";  
String usuario = "";  
String nome = "";  
char caractere;  
char carac;

void setup() {  
Serial.begin(9600);  
SPI.begin();  
if (SD.begin(4)) {  
myFile = SD.open("rfid.txt");  
if (myFile) {  
while (myFile.available()) {  
for (x; myFile.read() == 13; x++) {  
delay(10);  
}  
}  
}  
else {  
Serial.println("Falha ao abrir banco de dados");  
}  
Serial.print(x);  
Serial.println(" usuarios cadastrados: ");  
myFile.close();  
!SD.begin(4);  
}  
}

void loop() {  
mfrc522.PCD\_Init();  
while (sel == 0) {  
Serial.println("Aproxime o seu cartao do leitor...");  
cconteudo = "";  
while ( ! mfrc522.PICC\_IsNewCardPresent()) {  
}  
if ( ! mfrc522.PICC\_ReadCardSerial()) {  
return;  
}  
for (byte i = 0; i < mfrc522.uid.size; i++) {  
cconteudo.concat(String(mfrc522.uid.uidByte[i] < 0x10 ? " 0" : " "));  
cconteudo.concat(String(mfrc522.uid.uidByte[i], HEX));  
}  
cconteudo.toUpperCase();  
cconteudo.trim();  
mfrc522.PICC\_HaltA();  
  
myFile = SD.open("rfid.txt");  
if (myFile) {  
while (myFile.available() && (c2 == 0)) {  
caractere = 0;  
while (myFile.available() && (caractere != ';') && (caractere != 13) && (c1 == 0)) {  
caractere = myFile.read();  
if ((caractere != ';') && (caractere != 13)) {  
usuario.concat(caractere);  
}  
}  
usuario.trim();  
if ((cconteudo == usuario ) && (c1 == 0) ) {  
status = "Usuario encontrado";  
Serial.println(status);  
c1 = 1;  
c3 = 1;  
}  
else {  
usuario = "";  
status = "Usuario nao encontrado ";  
}  
if (c3 == 1) {  
carac = 0;  
while (myFile.available() && (carac != 13) && (c3 == 1)) {  
carac = myFile.read();  
if ((carac != 13) && (carac != ';')) {  
nome.concat(carac);  
}  
delay(10);  
}  
nome.trim();  
if (c3 == 1) {  
c3 = 0;  
c2 = 1;  
sel = 1;  
}  
}

}

}  
else {  
Serial.println("Falha ao abrir banco de dados");  
}  
if (status != "Usuario encontrado") {  
Serial.println(status);  
}

}  
myFile.close();  
Serial.print("Bem vindo ");  
Serial.println(nome);  
delay(2000);

}

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