#include <SPI.h>

#include <SD.h>

File myFile;

void setup() {

Serial.begin(9600);

while (!Serial) {

; // wait for serial port to connect. Needed for native USB port only

}

Serial.print("Initializing SD card...");

if (!SD.begin(53)) {

Serial.println("SD card initialization failed!");

return;

}

Serial.println("SD card initialization done.");

Serial.println("Enter 'write <filename>'");

Serial.println("Enter 'delete <filename>'");

Serial.println("Enter 'read <filename>'");

}

void loop() {

// Wait for user input

while (!Serial.available());

// Read user input

String inputString = Serial.readStringUntil('\n');

inputString.trim();

if (inputString.startsWith("write")) {

// Get file name from user and open file for writing

String fileName = inputString.substring(6);

myFile = SD.open(fileName, FILE\_WRITE);

if (myFile) {

Serial.print("Enter data to write: ");

while (!Serial.available());

String dataString = Serial.readStringUntil('\n');

dataString.trim();

myFile.println(dataString);

myFile.close();

Serial.println("Data written to file.");

} else {

Serial.println("Error opening file.");

}

} else if (inputString.startsWith("read")) {

// Get file name from user and open file for reading

String fileName = inputString.substring(5);

myFile = SD.open(fileName);

if (myFile) {

// Read data from file and print to serial monitor

while (myFile.available()) {

Serial.write(myFile.read());

}

myFile.close();

} else {

Serial.println("Error opening file.");

}

} else if (inputString.startsWith("delete")) {

// Get file name from user and delete the file

String fileName = inputString.substring(7);

if (SD.remove(fileName)) {

Serial.println("File deleted.");

} else {

Serial.println("Error deleting file.");

}

} else {

Serial.println("Invalid input. Enter 'write <filename>' to write data to a file, 'read <filename>' to read data from a file, or 'delete <filename>' to delete a file.");

}

}