https://www.tinkercad.com/things/3t572ldj42e-magnificent-albar/editel?tenant=circuits?sharecode=qRCAGODRZlft\_1z10E1kwwC8TpQ8E6ymXUbzrbod2TM=?sharecode=qRCAGODRZlft\_1z10E1kwwC8TpQ8E6ymXUbzrbod2TM=

TASK 1

A picture containing screenshot

Description automatically generated

#include <LiquidCrystal.h>;

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

const int switchPin = 6;

int switchState = 0;

int prevSwitchState = 0;

int reply;

void setup() {

lcd.begin(16 , 2);

pinMode(switchPin ,INPUT);

lcd.print("Ask the");

lcd.setCursor(0, 1);

lcd.print("Crystal Ball!");

}

void loop() {

switchState = digitalRead(switchPin);

if (switchState != prevSwitchState) {

if (switchState == LOW) {

reply = random(8);

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("The ball says:");

lcd.setCursor(0, 1);

switch(reply){

case 0:

lcd.print("Yes");

break;

case 1:

lcd.print("Most likely");

break;

case 2:

lcd.print("Certainly");

break;

case 3:

lcd.print("Outlook good");

break;

case 4:

lcd.print("Unsure");

break;

case 5:

lcd.print("Ask again");

break;

case 6:

lcd.print("Doubtful");

break;

case 7:

lcd.print("No");

break;

}

}

}

prevSwitchState = switchState;

}

TASK2A screenshot of a video game

Description automatically generated

#include<LiquidCrystal.h>;

LiquidCrystal lcd ( 12 , 11 , 5 , 4 , 3 , 2 ) ;

const int switchPin = 6 ;

int switchState = 0 ;

int prevSwitchState = 0 ;

int reply ;

void setup () {

lcd . begin ( 16 , 2 ) ;

pinMode ( switchPin , INPUT ) ;

lcd . print ("Ask the") ;

lcd . setCursor (0 , 1 ) ;

lcd . print (" Crystal Ball !") ;

}

void loop () {

switchState = digitalRead ( switchPin ) ;

if ( switchState != prevSwitchState ) {

if ( switchState == LOW ) {

reply = random ( 9 ) ;

lcd . clear () ;

lcd . setCursor (0 , 0 ) ;

lcd . print ("The ball says :") ;

lcd . setCursor (0 , 1 ) ;

switch ( reply ){

case 0:

lcd . print ("Yes") ;

break ;

case 1:

lcd . print (" Most likely ") ;

break ;

case 2:

lcd . print (" Certainly ") ;

break ;

case 3:

lcd . print (" Outlook good ") ;

break ;

case 4:

lcd . print (" Unsure ") ;

break ;

case 5:

lcd . print ("Ask again ") ;

break ;

case 6:

lcd . print (" Doubtful ") ;

break ;

case 7:

lcd . print ("No") ;

break ;

case 8:

lcd . print ("Dylan Bearm") ;

break ;

}

}

}

prevSwitchState = switchState ;

}

TASK3

A screenshot of a video game

Description automatically generated

#include<LiquidCrystal.h>;

LiquidCrystal lcd ( 12 , 11 , 5 , 4 , 3 , 2 ) ;

const int switchPin = 6 ;

int switchState = 0 ;

int prevSwitchState = 0 ;

int reply ;

void setup () {

pinMode(13,OUTPUT);

pinMode(10,OUTPUT);

pinMode(9,OUTPUT);

lcd . begin ( 16 , 2 ) ;

pinMode ( switchPin , INPUT ) ;

lcd . print ("Ask the") ;

lcd . setCursor (0 , 1 ) ;

lcd . print (" Crystal Ball !") ;

}

void loop () {

switchState = digitalRead ( switchPin ) ;

if ( switchState != prevSwitchState ) {

if ( switchState == LOW ) {

reply = random ( 9 ) ;

lcd . clear () ;

lcd . setCursor (0 , 0 ) ;

lcd . print ("The ball says :") ;

lcd . setCursor (0 , 1 ) ;

switch ( reply ){

case 0:

lcd . print ("Yes") ;

digitalWrite(13,HIGH);

digitalWrite(10,LOW);

digitalWrite(9,LOW);

break ;

case 1:

lcd . print (" Most likely ") ;

digitalWrite(13,HIGH);

digitalWrite(10,LOW);

digitalWrite(9,LOW);

break ;

case 2:

lcd . print (" Certainly ") ;

digitalWrite(13,HIGH);

digitalWrite(10,LOW);

digitalWrite(9,LOW);

break ;

case 3:

lcd . print (" Outlook good ") ;

digitalWrite(13,HIGH);

digitalWrite(10,LOW);

digitalWrite(9,LOW);

break ;

case 4:

lcd . print (" Unsure ") ;

digitalWrite(13,LOW);

digitalWrite(10,HIGH);

digitalWrite(9,LOW);

break ;

case 5:

lcd . print ("Ask again ") ;

digitalWrite(13,LOW);

digitalWrite(10,HIGH);

digitalWrite(9,LOW);

break ;

case 6:

lcd . print (" Doubtful ") ;

digitalWrite(13,LOW);

digitalWrite(10,LOW);

digitalWrite(9,HIGH);

break ;

case 7:

lcd . print ("No") ;

digitalWrite(13,LOW);

digitalWrite(10,LOW);

digitalWrite(9,HIGH);

break ;

case 8:

lcd . print ("Dylan Bearm") ;

digitalWrite(13,LOW);

digitalWrite(10,LOW);

digitalWrite(9,LOW);

break ;

}

}

}

prevSwitchState = switchState ;

}