#include<iostream>

#include<graphics.h>

#include<stdio.h>

#include<math.h>

#include<dos.h>

void Info();

void Menu();

void My\_Name();

void Doraemon();

void Small\_City();

void Snowman\_Butterfly();

void Robot();

void Moving\_Car();

void Hut();

void Emoji();

void MidPointCircle();

void DDA();

void Flag();

int main()

{

int i, gd = DETECT, gm;

initgraph(&gd,&gm,"");

initwindow(1024,1024,"line");

int xc,yc,r;

float x1, y1, x2, y2;

Info();

printf("=============================================\n\n");

Menu();

printf("=============================================\n\n");

int choice;

while(1)

{

printf("Enter your choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

My\_Name();

printf(".............................\n\n");

break;

case 2:

Doraemon();

printf(".............................\n\n");

break;

case 3:

Small\_City();

printf(".............................\n\n");

break;

case 4:

Snowman\_Butterfly();

printf(".............................\n\n");

break;

case 5:

Robot();

printf(".............................\n\n");

break;

case 6:

Moving\_Car();

printf(".............................\n\n");

break;

case 7:

Hut();

printf(".............................\n\n");

break;

case 8:

Emoji();

printf(".............................\n\n");

break;

case 9:

MidPointCircle();

printf(".............................\n\n");

break;

case 10:

DDA();

printf(".............................\n\n");

break;

case 11:

Flag();

printf(".............................\n\n");

break;

case 0:

printf("Exiting...");

return 0;

default:

printf("Invalid case. Please try again.\n");

}

}

getch();

closegraph();

return 0;

}

void Info()

{

printf("\n\n=============================================\n");

printf("Submitted By :\n\n");

printf("Name: Kanij Rejwana Tamim\n");

printf("ID: CSE2102023058\n");

printf("Section: Oracle 23A\n");

printf("Course Title: Computer Graphics\n\n");

printf("=============================================\n\n");

}

void Menu()

{

printf("1. My Name Using Color:\n\n");

printf("2. Doraemon:\n\n");

printf("3. A Small City Image:\n\n");

printf("4. Snowman & Butterfly:\n\n");

printf("5. A Robot:\n\n");

printf("6. Moving Car Using Color:\n\n");

printf("7. Draw A Hut:\n\n");

printf("8. Smiling Face Emoji With Color:\n\n");

printf("9. Mid Point Circle Drawing Algorithm:\n\n");

printf("10. DDA Line Drawing Algorithm:\n\n");

printf("11. Draw A Flag:\n\n");

printf("0. Exit");

}

//////////////////////////////////////////////////////////////////

void My\_Name()

{

setcolor(WHITE);

line(200,200,560,200); // Background

line(560,200,560,350);

line(560,350,200,350);

line(200,350,200,200);

setfillstyle(1,7);

floodfill(201,349,WHITE);

line(250,250,300,250); // T

line(250,250,250,260);

line(250,260,270,260);

line(270,260,270,300);

line(270,300,280,300);

line(280,260,300,260);

line(300,250,300,260);

line(280,260,280,300);

setfillstyle(1,2);

floodfill(275,260,WHITE);

line(325,250,310,300); // A

line(325,250,335,250);

line(335,250,350,300);

line(350,300,340,300);

line(340,300,335,280);

line(335,280,325,280);

line(325,280,320,300);

line(320,300,310,300);

line(333,270,327,270);

line(327,270,330,260);

line(330,260,333,270);

setfillstyle(1,MAGENTA);

floodfill(320,290,WHITE);

line(360,250,360,300); // M

line(360,300,370,300);

line(370,300,370,260);

line(370,260,385,280);

line(385,280,395,280);

line(395,280,410,260);

line(410,260,410,300);

line(410,300,420,300);

line(420,300,420,250);

line(420,250,410,250);

line(410,250,390,270);

line(390,270,370,250);

line(370,250,360,250);

setfillstyle(1,CYAN);

floodfill(365,260,WHITE);

line(430,250,440,250); // I

line(440,250,440,300);

line(440,300,430,300);

line(430,300,430,250);

setfillstyle(1,RED);

floodfill(433,260,WHITE);

line(450,250,460,250); // M

line(460,250,480,270);

line(480,270,500,250);

line(500,250,510,250);

line(510,250,510,300);

line(510,300,500,300);

line(500,300,500,260);

line(500,260,485,280);

line(485,280,475,280);

line(475,280,460,260);

line(460,260,460,300);

line(460,300,450,300);

line(450,300,450,250);

setfillstyle(1,1);

floodfill(465,260,WHITE);

setfillstyle(1,7);

floodfill(330,265,WHITE);

}

//////////////////////////////////////////////////////////////////

void Doraemon()

{

setcolor(LIGHTBLUE); // head

ellipse(270,220,326,214,100,110);

line(185,280,355,280);

setfillstyle(1,LIGHTBLUE);

floodfill(271,180,LIGHTBLUE);

setcolor(WHITE); // head

ellipse(270,240,325,215,70,70);

line(210,280,330,280);

setfillstyle(1,WHITE);

floodfill(271,240,WHITE);

setcolor(BLACK); // eye left

ellipse(240,170,280,280,20,30);

setfillstyle(1,WHITE);

floodfill(241,170,BLACK);

ellipse(300,170,280,280,20,30); // eye right

setfillstyle(1,WHITE);

floodfill(301,170,BLACK);

ellipse(300,170,280,280,8,11); // eye right

setfillstyle(1,BLACK);

floodfill(301,170,BLACK);

setcolor(WHITE);

circle(300,170,4);

setfillstyle(1,WHITE);

floodfill(301,170,WHITE);

setcolor(BLACK); // eye left

ellipse(240,170,280,280,8,11);

setfillstyle(1,BLACK);

floodfill(241,170,BLACK);

setcolor(WHITE);

circle(240,170,4);

setfillstyle(1,WHITE);

floodfill(241,170,WHITE);

setcolor(RED); // nose

circle(270,200,10);

setfillstyle(1,RED);

floodfill(271,200,RED);

setcolor(WHITE);

circle(272,198,3);

setfillstyle(1,WHITE);

floodfill(273,198,WHITE);

setcolor(BLACK); // mouth

line(270,210,270,225);

line(230,225,310,225);

ellipse(270,226,180,360,40,40);

setfillstyle(1,LIGHTRED);

floodfill(271,226,BLACK);

setcolor(RED); // toung

ellipse(270,270,390,150,30,30);

setfillstyle(1,RED);

floodfill(271,240,RED);

setcolor(BLACK);

line(260,210,200,200);

line(280,210,340,200);

line(260,214,200,214);

line(280,214,340,214);

line(260,218,200,228);

line(280,218,340,228);

setcolor(RED);

line(186,280,354,280);

line(354,280,354,290);

line(354,290,186,290);

line(186,290,186,280);

setfillstyle(1,RED);

floodfill(189,281,RED);

setcolor(LIGHTBLUE);

line(186,290,354,290);

line(186,290,140,360); // hand left

line(140,360,155,369);

line(155,369,190,350);

line(354,290,394,360); // hand right

line(394,360,380,369);

line(380,369,350,350);

line(190,330,190,450); // body

line(350,330,350,450);

line(190,450,350,450);

setfillstyle(1,LIGHTBLUE);

floodfill(195,335,LIGHTBLUE);

setcolor(BLACK);

line(270,450,270,420);

setcolor(WHITE); // legs

ellipse(225,450,280,280,45,20);

setfillstyle(1,WHITE);

floodfill(231,450,WHITE);

ellipse(315,450,280,280,45,20);

setfillstyle(1,WHITE);

floodfill(314,450,WHITE);

setcolor(WHITE); // hands circle

circle(135,370,20);

setfillstyle(1,WHITE);

floodfill(136,370,WHITE);

circle(399,370,20);

setfillstyle(1,WHITE);

floodfill(398,370,WHITE);

setcolor(BLACK); // belt circle

circle(270,299,15);

setfillstyle(1,YELLOW);

floodfill(271,299,BLACK);

setcolor(BLACK);

line(269,303,269,313);

line(269,313,271,313);

line(271,313,271,303);

line(271,303,269,303);

setfillstyle(1,BLACK);

floodfill(270,304,BLACK);

circle(270,302,5);

setfillstyle(1,BLACK);

floodfill(271,302,BLACK);

ellipse(270,350,180,360,40,40);

line(230,350,310,350);

setfillstyle(1,WHITE);

floodfill(235,355,BLACK);

}

//////////////////////////////////////////////////////////////////

void Small\_City()

{

setfillstyle(1,LIGHTBLUE); // sky

floodfill(10,10,LIGHTBLUE);

setcolor(GREEN); // small tree

circle(990,510,70);

setfillstyle(1,GREEN);

floodfill(991,510,GREEN);

circle(620,510,80);

setfillstyle(1,GREEN);

floodfill(621,510,GREEN);

circle(730,520,50);

setfillstyle(1,GREEN);

floodfill(731,520,GREEN);

setcolor(BROWN); // road

line(0,550,1024,550);

setfillstyle(1,BROWN);

floodfill(5,605,BROWN);

setcolor(BLACK); // tree

line(690,550,690,340);

line(690,340,710,340);

line(710,340,710,550);

line(710,550,690,550);

setfillstyle(1,BROWN);

floodfill(700,500,BLACK);

setcolor(GREEN);

circle(650,360,60);

setfillstyle(1,GREEN);

floodfill(651,360,GREEN);

setcolor(GREEN);

circle(700,270,60);

setfillstyle(1,GREEN);

floodfill(701,270,GREEN);

setcolor(GREEN);

circle(750,360,60);

setfillstyle(1,GREEN);

floodfill(751,360,GREEN);

setcolor(BLACK); // building 1

line(5,550,5,300);

line(5,300,145,300);

line(145,300,145,550);

line(145,550,5,550);

setfillstyle(1,YELLOW);

floodfill(100,500,BLACK);

setcolor(BLACK); // building 2

line(155,550,155,260);

line(155,260,295,260);

line(295,260,295,550);

line(295,550,155,550);

setfillstyle(1,LIGHTRED);

floodfill(160,500,BLACK);

setcolor(BLACK); // building 3

line(305,550,305,200);

line(305,200,445,200);

line(445,200,445,550);

line(445,550,305,550);

setfillstyle(1,LIGHTCYAN);

floodfill(310,500,BLACK);

setcolor(BLACK); // building 4

line(455,550,595,550);

line(595,550,595,320);

line(595,320,455,320);

line(455,320,455,550);

setfillstyle(1,WHITE);

floodfill(460,500,BLACK);

setcolor(BLACK); // building 5

line(805,340,805,550);

line(805,550,945,550);

line(945,550,945,340);

line(945,340,805,340);

setfillstyle(1,LIGHTMAGENTA);

floodfill(810,500,BLACK);

setcolor(WHITE); // window 1

line(20,310,20,340);

line(20,310,60,310);

line(60,310,60,340);

line(60,340,20,340);

setfillstyle(1,RED);

floodfill(21,315,WHITE);

line(90,310,130,310);

line(130,310,130,340);

line(130,340,90,340);

line(90,340,90,310);

setfillstyle(1,RED);

floodfill(91,315,WHITE);

line(20,360,20,390);

line(20,360,60,360);

line(60,360,60,390);

line(60,390,20,390);

setfillstyle(1,RED);

floodfill(21,365,WHITE);

line(90,360,90,390);

line(90,360,130,360);

line(130,360,130,390);

line(130,390,90,390);

setfillstyle(1,RED);

floodfill(91,365,WHITE);

line(20,410,20,440);

line(20,410,60,410);

line(60,410,60,440);

line(60,440,20,440);

setfillstyle(1,RED);

floodfill(21,415,WHITE);

line(90,410,90,440);

line(90,410,130,410);

line(130,410,130,440);

line(130,440,90,440);

setfillstyle(1,RED);

floodfill(91,415,WHITE);

line(20,460,20,490);

line(20,460,60,460);

line(60,460,60,490);

line(60,490,20,490);

setfillstyle(1,RED);

floodfill(21,465,WHITE);

setcolor(BLACK);

line(80,480,80,550);

line(80,480,130,480);

line(130,480,130,550);

line(130,550,80,550);

setfillstyle(1,RED);

floodfill(81,485,BLACK);

circle(120,520,5);

setfillstyle(1,WHITE);

floodfill(121,520,BLACK);

setcolor(BLACK);

line(170,270,210,270); // window 2

line(210,270,210,320);

line(210,320,170,320);

line(170,320,170,270);

setfillstyle(1,WHITE);

floodfill(171,271,BLACK);

line(240,270,280,270);

line(280,270,280,320);

line(280,320,240,320);

line(240,320,240,270);

setfillstyle(1,WHITE);

floodfill(241,271,BLACK);

line(170,340,210,340);

line(210,340,210,390);

line(210,390,170,390);

line(170,390,170,340);

setfillstyle(1,WHITE);

floodfill(171,341,BLACK);

line(240,340,280,340);

line(280,340,280,390);

line(280,390,240,390);

line(240,390,240,340);

setfillstyle(1,WHITE);

floodfill(241,341,BLACK);

line(170,410,210,410);

line(210,410,210,460);

line(210,460,170,460);

line(170,460,170,410);

setfillstyle(1,WHITE);

floodfill(171,411,BLACK);

line(240,410,280,410);

line(280,410,280,460);

line(280,460,240,460);

line(240,460,240,410);

setfillstyle(1,WHITE);

floodfill(241,411,BLACK);

line(180,480,180,550);

line(180,550,230,550);

line(230,550,230,480);

line(230,480,180,480);

setfillstyle(1,WHITE);

floodfill(181,481,BLACK);

circle(190,520,5);

setfillstyle(1,BLACK);

floodfill(191,520,BLACK);

setcolor(RED);

line(320,210,360,210); // window 3

line(360,210,360,260);

line(360,260,320,260);

line(320,260,320,210);

setfillstyle(1,YELLOW);

floodfill(321,211,RED);

line(390,210,430,210);

line(430,210,430,260);

line(430,260,390,260);

line(390,260,390,210);

setfillstyle(1,YELLOW);

floodfill(391,211,RED);

line(320,280,360,280);

line(360,280,360,330);

line(360,330,320,330);

line(320,330,320,280);

setfillstyle(1,YELLOW);

floodfill(321,281,RED);

line(390,280,430,280);

line(430,280,430,330);

line(430,330,390,330);

line(390,330,390,280);

setfillstyle(1,YELLOW);

floodfill(391,281,RED);

line(320,350,360,350);

line(360,350,360,400);

line(360,400,320,400);

line(320,400,320,350);

setfillstyle(1,YELLOW);

floodfill(321,351,RED);

line(390,350,430,350);

line(430,350,430,400);

line(430,400,390,400);

line(390,400,390,350);

setfillstyle(1,YELLOW);

floodfill(391,351,RED);

line(320,420,360,420);

line(360,420,360,470);

line(360,470,320,470);

line(320,470,320,420);

setfillstyle(1,YELLOW);

floodfill(321,421,RED);

line(390,420,430,420);

line(430,420,430,470);

line(430,470,390,470);

line(390,470,390,420);

setfillstyle(1,YELLOW);

floodfill(391,421,RED);

line(350,480,400,480);

line(400,480,400,550);

line(400,550,350,550);

line(350,550,350,480);

setfillstyle(1,YELLOW);

floodfill(351,481,RED);

circle(360,520,5);

setfillstyle(1,RED);

floodfill(361,520,RED);

setcolor(BLACK); // window 4

line(470,330,510,330);

line(510,330,510,380);

line(510,380,470,380);

line(470,380,470,330);

setfillstyle(1,MAGENTA);

floodfill(471,331,BLACK);

line(540,330,580,330);

line(580,330,580,380);

line(580,380,540,380);

line(540,380,540,330);

setfillstyle(1,MAGENTA);

floodfill(541,331,BLACK);

line(470,400,510,400);

line(510,400,510,450);

line(510,450,470,450);

line(470,450,470,400);

setfillstyle(1,MAGENTA);

floodfill(471,401,BLACK);

line(540,400,580,400);

line(580,400,580,450);

line(580,450,540,450);

line(540,450,540,400);

setfillstyle(1,MAGENTA);

floodfill(541,401,BLACK);

line(470,470,510,470);

line(510,470,510,520);

line(510,520,470,520);

line(470,520,470,470);

setfillstyle(1,MAGENTA);

floodfill(471,471,BLACK);

line(530,470,580,470);

line(580,470,580,550);

line(580,550,530,550);

line(530,550,530,470);

setfillstyle(1,MAGENTA);

floodfill(531,471,BLACK);

setcolor(BLACK);

circle(570,520,5);

setfillstyle(1,YELLOW);

floodfill(571,520,BLACK);

setcolor(BLACK);

line(820,350,860,350);

line(860,350,860,400);

line(860,400,820,400);

line(820,400,820,350);

setfillstyle(1,WHITE);

floodfill(821,351,BLACK);

line(820,420,860,420);

line(860,420,860,470);

line(860,470,820,470);

line(820,470,820,420);

setfillstyle(1,WHITE);

floodfill(821,421,BLACK);

line(890,350,930,350);

line(930,350,930,400);

line(930,400,890,400);

line(890,400,890,350);

setfillstyle(1,WHITE);

floodfill(891,351,BLACK);

line(890,420,930,420);

line(930,420,930,470);

line(930,470,890,470);

line(890,470,890,420);

setfillstyle(1,WHITE);

floodfill(891,421,BLACK);

line(890,490,930,490);

line(930,490,930,540);

line(930,540,890,540);

line(890,540,890,490);

setfillstyle(1,WHITE);

floodfill(891,491,BLACK);

line(820,490,820,550);

line(820,550,870,550);

line(870,550,870,490);

line(870,490,820,490);

setfillstyle(1,WHITE);

floodfill(821,491,BLACK);

setcolor(YELLOW);

circle(830,520,5);

setfillstyle(1,MAGENTA);

floodfill(831,520,YELLOW);

setcolor(BLACK); // sun

line(210,80,310,80);

line(260,30,260,130);

line(220,50,300,110);

line(300,50,220,110);

setcolor(WHITE); // sun circle

circle(260,80,30);

setfillstyle(1,YELLOW);

floodfill(261,80,WHITE);

}

//////////////////////////////////////////////////////////////////

void Snowman\_Butterfly()

{

setcolor(LIGHTMAGENTA); // cap

ellipse(270,195,280,280,85,30);

setfillstyle(1,MAGENTA);

floodfill(271,195,LIGHTMAGENTA);

setcolor(LIGHTMAGENTA);

ellipse(220,140,280,80,10,35);

ellipse(320,140,100,280,10,35);

ellipse(270,109,360,180,49,10);

ellipse(270,173,360,180,48,9);

setfillstyle(1,MAGENTA);

floodfill(271,115,LIGHTMAGENTA);

setcolor(WHITE); // head

ellipse(270,240,340,180,60,60);

ellipse(260,240,207,360,70,80);

circle(210,260,20);

setfillstyle(1,WHITE);

floodfill(211,260,WHITE);

floodfill(271,240,WHITE);

setcolor(BLACK); // left eye

ellipse(235,230,280,280,9,14);

setfillstyle(1,BLACK);

floodfill(236,231,BLACK);

setcolor(WHITE);

ellipse(237,225,280,280,3,5);

setfillstyle(1,WHITE);

floodfill(238,225,WHITE);

setcolor(BLACK); // right eye

ellipse(280,230,280,280,9,14);

setfillstyle(1,BLACK);

floodfill(281,230,BLACK);

setcolor(WHITE);

ellipse(282,225,280,280,3,5);

setfillstyle(1,WHITE);

floodfill(283,225,WHITE);

setcolor(LIGHTRED); // nose

line(250,240,243,260);

line(243,260,170,225);

line(170,225,250,240);

setfillstyle(1,LIGHTRED);

floodfill(249,241,LIGHTRED);

setcolor(WHITE); // chest

ellipse(270,360,110,422,80,70);

setfillstyle(1,WHITE);

floodfill(271,360,WHITE);

setcolor(BLUE); // button

circle(270,370,18);

setfillstyle(1,BLUE);

floodfill(271,370,BLUE);

setcolor(BLACK); // belt

ellipse(264,300,180,372,50,30);

ellipse(262,252,180,360,80,60);

setfillstyle(1,YELLOW);

floodfill(265,320,BLACK);

setcolor(BLACK);

line(280,328,290,380);

line(290,380,320,370);

line(320,370,290,325);

setfillstyle(1,YELLOW);

floodfill(295,375,BLACK);

ellipse(254,274,180,340,30,15); // lip

ellipse(290,274,160,320,10,10);

setcolor(WHITE); // body part bottom

ellipse(268,470,128,410,100,90);

setfillstyle(1,WHITE);

floodfill(269,470,WHITE);

setcolor(BLACK); // chest.border

ellipse(270,360,140,422,80,70);

setcolor(RED); // hands

ellipse(460,308,280,280,30,20);

setfillstyle(1,RED);

floodfill(461,308,RED);

ellipse(450,285,280,280,10,15);

setfillstyle(1,RED);

floodfill(451,285,RED);

ellipse(80,308,280,280,30,20);

setfillstyle(1,RED);

floodfill(81,308,RED);

ellipse(90,285,280,280,10,15);

setfillstyle(1,RED);

floodfill(91,285,RED);

setcolor(LIGHTRED);

ellipse(435,305,280,280,10,20);

setfillstyle(1,LIGHTRED);

floodfill(436,305,LIGHTRED);

ellipse(105,305,280,280,10,20);

setfillstyle(1,LIGHTRED);

floodfill(106,305,LIGHTRED);

setcolor(WHITE);

line(110,300,210,330);

line(210,330,205,350);

line(205,350,105,308);

line(105,308,110,300);

setfillstyle(1,WHITE);

floodfill(110,302,WHITE);

line(430,300,330,330);

line(330,330,325,350);

line(325,350,435,308),

line(435,308,430,300);

setfillstyle(1,WHITE);

floodfill(430,302,WHITE);

setcolor(BLUE); // button 2

circle(270,461,18);

setfillstyle(1,BLUE);

floodfill(271,461,BLUE);

////////// Butterfly ///////////

setcolor(LIGHTMAGENTA); // chest

circle(588,310,22);

setfillstyle(1,LIGHTRED);

floodfill(588,310,LIGHTMAGENTA);

ellipse(595,388,280,280,10,60); // tail

setfillstyle(1,LIGHTRED);

floodfill(595,388,LIGHTMAGENTA);

setcolor(YELLOW); // head

circle(570,280,19);

setfillstyle(1,YELLOW);

floodfill(571,280,YELLOW);

line(568,275,520,230); // antena

line(569,275,530,220);

ellipse(523,230,280,280,2,4);

setfillstyle(1,YELLOW);

floodfill(523,230,YELLOW);

ellipse(533,220,280,280,2,4);

setfillstyle(1,YELLOW);

floodfill(533,220,YELLOW);

setcolor(BLACK); // eye

circle(562,278,7);

setfillstyle(1,BLACK);

floodfill(563,278,BLACK);

setcolor(WHITE);

circle(560,278,4);

setfillstyle(1,WHITE);

floodfill(561,278,WHITE);

setcolor(BLACK); // lip

ellipse(561,290,180,360,10,5);

setcolor(LIGHTGREEN); // wins

line(603,310,630,250);

line(630,250,670,210);

line(670,210,730,180);

line(730,180,763,210);

line(763,210,780,260);

line(780,260,770,300);

line(770,300,670,370);

line(670,370,710,382);

line(710,382,725,380);

line(725,380,748,394);

line(748,394,770,430);

line(770,430,750,480);

line(750,480,710,488);

line(710,488,680,483);

line(680,483,640,460);

line(640,460,619,420);

line(619,420,603,325);

line(603,325,603,310);

setfillstyle(1,LIGHTGREEN);

floodfill(610,314,LIGHTGREEN);

setcolor(LIGHTGREEN);

circle(735,210,30);

setfillstyle(1,LIGHTGREEN);

floodfill(735,210,LIGHTGREEN);

floodfill(749,190,LIGHTGREEN);

circle(733,394,15);

setfillstyle(1,LIGHTGREEN);

floodfill(739,384,LIGHTGREEN);

circle(700,502,15);

setfillstyle(1,LIGHTGREEN);

floodfill(700,502,LIGHTGREEN);

setcolor(RED);

circle(733,215,25);

setfillstyle(1,RED);

floodfill(733,215,RED);

circle(750,250,10);

setfillstyle(1,BLUE);

floodfill(750,250,RED);

circle(755,273,8);

setfillstyle(1,LIGHTCYAN);

floodfill(755,273,RED);

circle(751,290,6);

setfillstyle(1,YELLOW);

floodfill(751,290,RED);

circle(695,220,7);

setfillstyle(1,YELLOW);

floodfill(695,220,RED);

circle(743,305,6);

setfillstyle(1,LIGHTBLUE);

floodfill(743,305,RED);

circle(732,315,5);

setfillstyle(1,LIGHTRED);

floodfill(732,315,RED);

circle(690,459,20);

setfillstyle(1,RED);

floodfill(690,459,RED);

circle(725,465,9);

setfillstyle(1,GREEN);

floodfill(725,465,RED);

circle(745,455,7);

setfillstyle(1,BLUE);

floodfill(745,455,RED);

circle(753,440,6);

setfillstyle(1,LIGHTBLUE);

floodfill(753,440,RED);

circle(752,425,5);

setfillstyle(1,YELLOW);

floodfill(752,425,RED);

circle(745,411,5);

setfillstyle(1,LIGHTRED);

floodfill(745,411,RED);

circle(737,400,5);

setfillstyle(1,LIGHTCYAN);

floodfill(737,400,RED);

}

//////////////////////////////////////////////////////////////////

void Robot()

{

setcolor(WHITE); // head

line(300,100,400,100);

line(400,100,400,200);

line(400,200,300,200);

line(300,200,300,100);

setfillstyle(1,LIGHTGRAY);

floodfill(301,101,WHITE);

line(330,190,370,190); // mouth

line(370,190,370,175);

line(370,175,330,175);

line(330,190,330,175);

setfillstyle(6,WHITE);

floodfill(331,189,WHITE);

circle(330,130,15); // eyes

setfillstyle(1,RED);

floodfill(331,130,WHITE);

circle(330,130,5);

setfillstyle(1,WHITE);

floodfill(331,130,WHITE);

circle(370,130,15);

setfillstyle(1,RED);

floodfill(371,130,WHITE);

circle(370,130,5);

setfillstyle(1,WHITE);

floodfill(371,130,WHITE);

line(300,130,285,130); // ears

line(285,130,285,155);

line(285,155,300,155);

line(300,155,300,130);

setfillstyle(1,YELLOW);

floodfill(299,131,WHITE);

line(400,130,415,130);

line(415,130,415,155);

line(415,155,400,155);

line(400,155,400,130);

setfillstyle(1,YELLOW);

floodfill(401,131,WHITE);

line(340,200,360,200); // throttle

line(360,200,365,230);

line(365,230,335,230);

line(335,230,340,200);

setfillstyle(1,YELLOW);

floodfill(341,201,WHITE);

line(250,230,450,230); // body

line(420,230,400,360);

line(400,360,300,360);

line(300,360,280,230);

setfillstyle(1,LIGHTGRAY);

floodfill(301,235,WHITE);

line(300,360,300,375);

line(300,375,400,375);

line(400,360,400,375);

line(400,360,300,360);

setfillstyle(1,BLUE);

floodfill(305,361,WHITE);

line(400,375,400,600); // legs

line(400,600,370,600);

line(370,600,355,375);

line(355,375,400,375);

setfillstyle(1,LIGHTGRAY);

floodfill(390,390,WHITE);

line(345,375,330,600);

line(330,600,300,600);

line(300,600,300,375);

line(300,375,345,375);

setfillstyle(1,LIGHTGRAY);

floodfill(310,399,WHITE);

line(400,600,420,600); // foot

line(420,600,420,620);

line(420,620,370,620);

line(370,620,370,600);

setfillstyle(1,YELLOW);

floodfill(400,610,WHITE);

line(330,600,330,620);

line(330,620,280,620);

line(280,620,280,600);

line(280,600,300,600);

setfillstyle(1,YELLOW);

floodfill(300,610,WHITE);

line(250,230,240,300); // arms

line(240,300,250,400);

line(250,400,270,400);

line(270,400,270,300);

line(270,300,285,260);

line(285,260,280,230);

setfillstyle(1,BLUE);

floodfill(260,240,WHITE);

circle(255,303,17);

setfillstyle(1,LIGHTGRAY);

floodfill(256,303,WHITE);

circle(260,420,20);

setfillstyle(1,YELLOW);

floodfill(261,420,WHITE);

setcolor(BLACK);

circle(260,427,15);

setfillstyle(1,BLACK);

floodfill(261,427,BLACK);

setcolor(WHITE);

line(450,230,460,300);

line(460,300,530,290);

line(530,290,540,305);

line(540,305,450,330);

line(450,330,415,260);

line(415,260,420,230);

setfillstyle(1,BLUE);

floodfill(430,240,WHITE);

circle(458,314,17);

setfillstyle(1,LIGHTGRAY);

floodfill(459,314,WHITE);

circle(552,287,20);

setfillstyle(1,YELLOW);

floodfill(553,287,WHITE);

setcolor(BLACK);

circle(558,285,15);

setfillstyle(1,BLACK);

floodfill(559,285,BLACK);

setcolor(WHITE);

circle(385,265,10); // robo switch button

setfillstyle(1,GREEN);

floodfill(386,265,WHITE);

circle(385,295,10);

setfillstyle(1,RED);

floodfill(386,295,WHITE);

circle(385,325,10);

setfillstyle(1,BLACK);

floodfill(386,325,WHITE);

circle(315,325,10);

setfillstyle(1,LIGHTRED);

floodfill(316,325,WHITE);

}

//////////////////////////////////////////////////////////////////

void Moving\_Car()

{

for(int i=0; i<=1000; i= i+12)

{

setcolor(WHITE);

line(0,500,1024,500);

setcolor(RED);

line(150+i,310,340+i,310);

line(150+i,310,110+i,390);

line(110+i,390,40+i,400);

line(40+i,400,40+i,450);

line(40+i,450,60+i,470);

line(340+i,310,380+i,390);

line(380+i,390,495+i,415);

line(495+i,415,495+i,450);

line(495+i,450,460+i,470);

line(460+i,470,60+i,470);

setfillstyle(1,RED);

floodfill(155+i,315,RED);

setcolor(WHITE);

setcolor(LIGHTCYAN);

line(50+i,460,478+i,460);

line(50+i,460,60+i,470);

line(60+i,470,460+i,470);

line(460+i,470,478+i,460);

setfillstyle(1,LIGHTRED);

floodfill(61+i,468,LIGHTCYAN);

setcolor(WHITE);

line(160+i,320,240+i,320);

line(160+i,320,125+i,390);

line(125+i,390,240+i,390);

line(240+i,390,240+i,320);

setfillstyle(1,WHITE);

floodfill(161+i,323,WHITE);

line(250+i,320,330+i,320);

line(330+i,320,365+i,390);

line(365+i,390,250+i,390);

line(250+i,390,250+i,320);

setfillstyle(1,WHITE);

floodfill(253+i,323,WHITE);

line(35+i,427,35+i,440);

line(35+i,440,60+i,440);

line(60+i,440,60+i,427);

line(60+i,427,35+i,427);

setfillstyle(1,BLUE);

floodfill(36+i,429,WHITE);

setcolor(BLACK);

circle(485+i,435,10);

setfillstyle(1,WHITE);

floodfill(485+i,435,BLACK);

setcolor(WHITE);

circle(130+i,450,43);

setfillstyle(1,LIGHTCYAN);

floodfill(130+i,450,WHITE);

circle(130+i,450,20);

setfillstyle(1,BLACK);

floodfill(130+i,450,WHITE);

circle(360+i,450,43);

setfillstyle(1,LIGHTCYAN);

floodfill(360+i,450,WHITE);

circle(360+i,450,20);

setfillstyle(1,BLACK);

floodfill(360+i,450,WHITE);

delay(100);

cleardevice();

}

}

//////////////////////////////////////////////////////////////////

void Hut()

{

setcolor(WHITE);

line(300,200,450,300);

line(450,300,900,300);

line(900,300,750,200);

line(750,200,300,200);

setfillstyle(1,BLUE);

floodfill(540,210,WHITE);

line(300,200,200,300);

line(200,300,230,300);

line(230,300,320,210);

line(320,200,300,200);

setfillstyle(1,BLUE);

floodfill(300,205,WHITE);

line(240,290,240,500);

line(240,500,480,520);

line(480,520,480,300);

setfillstyle(1,LIGHTGRAY);

floodfill(470,340,WHITE);

line(480,520,880,480);

line(880,480,880,300);

setfillstyle(1,LIGHTGRAY);

floodfill(500,340,WHITE);

line(300,355,300,505);

line(300,355,420,360);

line(420,360,420,515);

line(300,505,420,515);

setfillstyle(1,RED);

floodfill(320,380,WHITE);

line(550,355,650,355);

line(650,355,650,440);

line(650,440,550,450);

line(550,450,550,355);

setfillstyle(1,RED);

floodfill(600,380,WHITE);

line(750,350,750,430);

line(750,430,840,420);

line(840,420,840,345);

line(840,345,750,350);

setfillstyle(1,RED);

floodfill(800,380,WHITE);

line(240,500,225,499);

line(225,499,200,530);

line(200,530,480,555);

line(480,555,920,510);

line(920,510,895,479);

line(895,479,880,480);

setfillstyle(1,BROWN);

floodfill(230,505,WHITE);

circle(400,440,7);

setfillstyle(1,YELLOW);

floodfill(401,440,WHITE);

}

//////////////////////////////////////////////////////////////////

void Emoji()

{

setcolor(WHITE);

circle(400,310,150);

setfillstyle(1,YELLOW);

floodfill(400,300,WHITE);

setcolor(BLACK);

circle(350,260,30);

setfillstyle(1,WHITE);

floodfill(351,261,BLACK);

setcolor(BLACK);

circle(450,260,30);

setfillstyle(1,WHITE);

floodfill(451,261,BLACK);

setcolor(BLACK);

circle(350,260,18);

circle(347,260,5);

setfillstyle(1,BLACK);

floodfill(351,261,BLACK);

setcolor(BLACK);

circle(450,260,18);

circle(447,260,5);

setfillstyle(1,BLACK);

floodfill(451,261,BLACK);

setcolor(WHITE);

circle(355,252,7);

setfillstyle(1,WHITE);

floodfill(355,252,WHITE);

circle(455,252,7);

setfillstyle(1,WHITE);

floodfill(455,252,WHITE);

setcolor(BLUE);

line(400,310,420,330);

line(400,310,380,330);

line(380,330,420,330);

setfillstyle(1,CYAN);

floodfill(400,315,BLUE);

setcolor(BLACK);

line(345,350,455,350);

ellipse(400,350,180,360,55,50);

setfillstyle(6,WHITE);

floodfill(346,351,BLACK);

}

//////////////////////////////////////////////////////////////////

void MidPointCircle()

{

int gd = DETECT, gm;

initgraph(&gd, &gm, "");

initwindow(1024, 1024, "Midpoint Circle Algorithm");

int xc, yc, r;

printf("Enter the Center of The Circle(xc,yc):");

scanf("%d%d",&xc,&yc);

printf("Enter The Radius of The Circle(r):");

scanf("%d",&r);

//drawcircle(xc,yc,r);

int x = 0, y = r;

int d = 1 - r;

auto plotPoints = [&](int xc, int yc, int x, int y) {

putpixel(xc + x, yc + y, WHITE);

putpixel(xc - x, yc + y, WHITE);

putpixel(xc + x, yc - y, WHITE);

putpixel(xc - x, yc - y, WHITE);

putpixel(xc + y, yc + x, WHITE);

putpixel(xc - y, yc + x, WHITE);

putpixel(xc + y, yc - x, WHITE);

putpixel(xc - y, yc - x, WHITE);

delay(100);

};

plotPoints(xc, yc, x, y);

while (x < y) {

x++;

if (d < 0) {

d += 2 \* x + 1;

} else {

y--;

d += 2 \* (x - y) + 1;

}

plotPoints(xc, yc, x, y);

}

}

//////////////////////////////////////////////////////////////////

void DDA()

{

float x1, y1, x2, y2;

printf("Enter the value of x1 and y1 :");

scanf("%f%f",&x1,&y1);

printf("Enter the value of x2 and y2 :");

scanf("%f%f",&x2,&y2);

float dx = abs(x2 - x1);

float dy = abs(y2 - y1);

float step = (dx > dy) ? dx : dy;

dx /= step;

dy /= step;

float x = x1;

float y = y1;

int i = 1;

while (i < step) {

putpixel(x, y, WHITE);

x += dx;

y += dy;

i++;

delay(200);

}

}

//////////////////////////////////////////////////////////////////

void Flag()

{

setcolor(YELLOW); // stand

line(220,150,240,150);

line(240,150,240,630);

line(240,630,220,630);

line(220,630,220,150);

setfillstyle(1,YELLOW);

floodfill(221,151,YELLOW);

setcolor(GREEN);

line(241,180,520,180);

line(520,180,520,350);

line(520,350,241,350);

line(241,350,241,180);

setfillstyle(1,GREEN);

floodfill(245,190,GREEN);

setcolor(RED); // circle

circle(380,265,60);

setfillstyle(1,RED);

floodfill(381,265,RED);

}