Nikeem Dunkelly-Allen, Lab 5, Thursday

#include "library.h"

const int clocktime = get\_clock\_time();

int calendartime = get\_calendar\_date();

int year = calendartime / 10000;

int month = calendartime /100%10;

int day = calendartime % 100;

int hour = clocktime / 10000 -12;

int minute = clocktime / 100 % 100;

double hourpropertime = clocktime / 10000;

int second = clocktime % 100;

const string months[] = { "0", "January", "February", "March", "April", "May", "June", "July", "August", "September",

"October", "November", "December" };

const string enths[] = { "0", "th", "nd", "rd", "th", "th", "th", "th", "th", "th", "th", "th", "th", "th", "th", "th",

"th", "th", "th", "th", "th", "nd", "rd", "th", "th", "th", "th", "th", "th", "th", "th", "st" };

void window\_time(){

move\_to(175, 50);

set\_font\_size(40);

if (hourpropertime < 12 ){

write\_string(hourpropertime);

write\_string(":");

write\_string(minute);

write\_string(" a.m.");

} else {

write\_string(hour);

write\_string(":");

write\_string(minute);

write\_string(" p.m.");

}

move\_to(175, 545);

write\_string(months[month]);

move\_to(150, 575);

write\_string(day);

write\_string(enths[day]);

move\_to(215, 575);

write\_string(" ");

write\_string(year);

}

void propertime(){

cout <<"Today's Date is: " << year << "-" << month << "-" << day;

new\_line();

if (hourpropertime > 12)

cout << "The Current Time is: " << hourpropertime -12.00 << ":" << minute << " p.m.";

else

cout << "The Current Time is: " << hourpropertime << ":" << minute << " a.m.";

}

void drawside(double angle, int length) {

turn\_right\_by\_degrees(angle);

draw\_distance(length);

}

void circle(int n, int numsides, int len) {

set\_pen\_width(5);

double pi = acos(-1.0);

if (n > 0) {

drawside(360.0 / numsides, len);

circle(n - 1, numsides, len);

}

}

void face(int s){

//circle(72,72,18);

const int turn = s + 30;

move\_to(225, 310);

if (s < 360){

set\_pen\_width(10);

set\_heading\_degrees(0);

turn\_right\_by\_degrees(turn);

move\_distance(175);

draw\_distance(25);

face(turn);

}

move\_to(20, 300);

circle(72, 72, 18);

}

void hourhand(){

// if hour = 5 then times 5\*30

move\_to(225, 310);

set\_pen\_width\_color(10,color::black);

set\_heading\_degrees(hour \* 30);

draw\_distance(100);

}

void minutehand(){

move\_to(225, 310);

set\_pen\_width\_color(10,color::black);

set\_heading\_degrees(minute\*6);

draw\_distance(167);

}

void secondhand(){

move\_to(225, 310);

set\_pen\_width\_color(3,color::red);

set\_heading\_degrees((second \* 6)+1);

draw\_distance(180);

}

void clock(){

//move\_to(20, 300);

//circle(72, 72, 18);

face(0);

secondhand();

hourhand();

minutehand();

}

void animated(){

while (true){

clock();

wait(0.7);

clocktime;

set\_pen\_color(color::white);

clock();

set\_pen\_color(color::black);

clear();

window\_time();

}

}

void main(){

make\_window(450, 600);

//move\_to(20, 300);

//circle(72, 72, 18);

//face(0);

//secondhand();

//hourhand();

//minutehand();

//clock();

window\_time();

propertime();

animated();

}

Propertime() is the second part, and animated is the full clock. I could not get the second had moving, could you explain how please.



