```php
<?php
      /**
      * @version 1.0
      *
      * @author Sasette
      *
      * create world and
      * update world from
      * game of live
      *
      **/

      require_once("Cell.php");
      class World {
            protected $height;
            protected $width;
            protected $cells;

            public function __construct($width=3, $height=3){
                  $this->width = $width;
                  $this->height = $height;
                  $this->cells = array();

                  for($x=1; $x<=$this->height; $x++) {
                        for($y=1; $y<=$this->width; $y++) {
                              //random or customize pattern
                              $alive = rand(0, 1);
                              //$alive =0;
                              $cell = new Cell($this, $alive, $x, $y );
                              $this->cells[$x][$y] = $cell;
                        }
                  }

                  /*
                  // bsp. Gleiter
                  $this->cells[2][3] = new Cell($this, 1, 2, 3 );
                  $this->cells[3][4] = new Cell($this, 1, 3, 4 );
                  $this->cells[4][2] = new Cell($this, 1, 4, 2 );
                  $this->cells[4][3] = new Cell($this, 1, 4, 3 );
                  $this->cells[4][4] = new Cell($this, 1, 4, 4 );
                  */

                  /*
                  // bsp. blinker
                  $this->cells[2][1] = new Cell($this, 1, 2, 1 );
                  $this->cells[2][2] = new Cell($this, 1, 2, 2 );
                  $this->cells[2][3] = new Cell($this, 1, 2, 3 );
                  */
            }

            public function getCell($x, $y){
                  if(isset($this->cells[$x][$y])) {
                        $test = $this->cells[$x][$y];
                        return $this->cells[$x][$y];
                  }else {
                        return false;
                  }
            }

            public function getHeight() {
                  return $this->height;
            }

            public function getWidth() {
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            return $this->width;
        }

        //show world
        public function show() {
            for($x=1; $x<=$this->height; $x++) {
                for($y=1; $y<=$this->width; $y++) {
                    $cell = $this->cells[$x][$y];
                    if($cell->isAlive()) {
                        echo "#";
                    }else {
                        echo " ";
                    }
                }
                echo PHP_EOL;
            }
        }

        //start Game od life
        public function start() {
            echo shell_exec('clear');
            $count = 1;
            while(True) {
                echo shell_exec('clear');
                $this->show();
                if($this->update() == true){
                    echo 'Step: ' . $count . PHP_EOL;
                    usleep(200000);
                    $count += 1;
                }else {
                    echo 'Step: ' . $count . PHP_EOL;
                    break;
                }
            }
        }

        //update world
        public function update(){
            $cellNew = $this->cells;
            $updateDone = false;

            //marker cells as live or dead for next update
            for($x = 1; $x<=$this->height; $x++) {
                for($y = 1; $y<=$this->width; $y++) {
                    $cell = $cellNew[$x][$y];
                    $countFriends = $cell->getFriendCount();
                    if($cell->isAlive() == true) {
                        if($countFriends < 2) {
                            $this->cells[$x][$y]-
>setNextUpdate(true);
                            $updateDone = true;
                        }elseif($countFriends == 2 || $countFriends
== 3) {
                            $this->cells[$x][$y]-
>setNextUpdate(false);
                        }elseif($countFriends > 3) {
                            $this->cells[$x][$y]-
>setNextUpdate(true);
                            $updateDone = true;
                        }
                    }else{
                        if($countFriends == 3){
                            $this->cells[$x][$y]-
>setNextUpdate(false);
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                                          $updateDone = true;
                                    }
                              }
                        }
                  }

                  //kill or revive cell
                  for($x = 1; $x<=$this->height; $x++) {
                        for($y = 1; $y<=$this->width; $y++) {
                              $cell = $this->cells[$x][$y];
                              $notSurvive=$cell->getNextUpdate();
                              if(!is_null($notSurvive)){
                                    if($notSurvive){
                                          $cell->kill();
                                    }else{
                                          $cell->revive();
                                    }
                              }
                        }
                  }
                  return $updateDone;
            }
      }
?>
```