Звіт про виконання программи "Гра 5 в ряд"

Зміст

1. Постановка задачі
2. Засоби реалізації
3. Наочне представлення
4. Використані бібліотеки 5.Лістінг

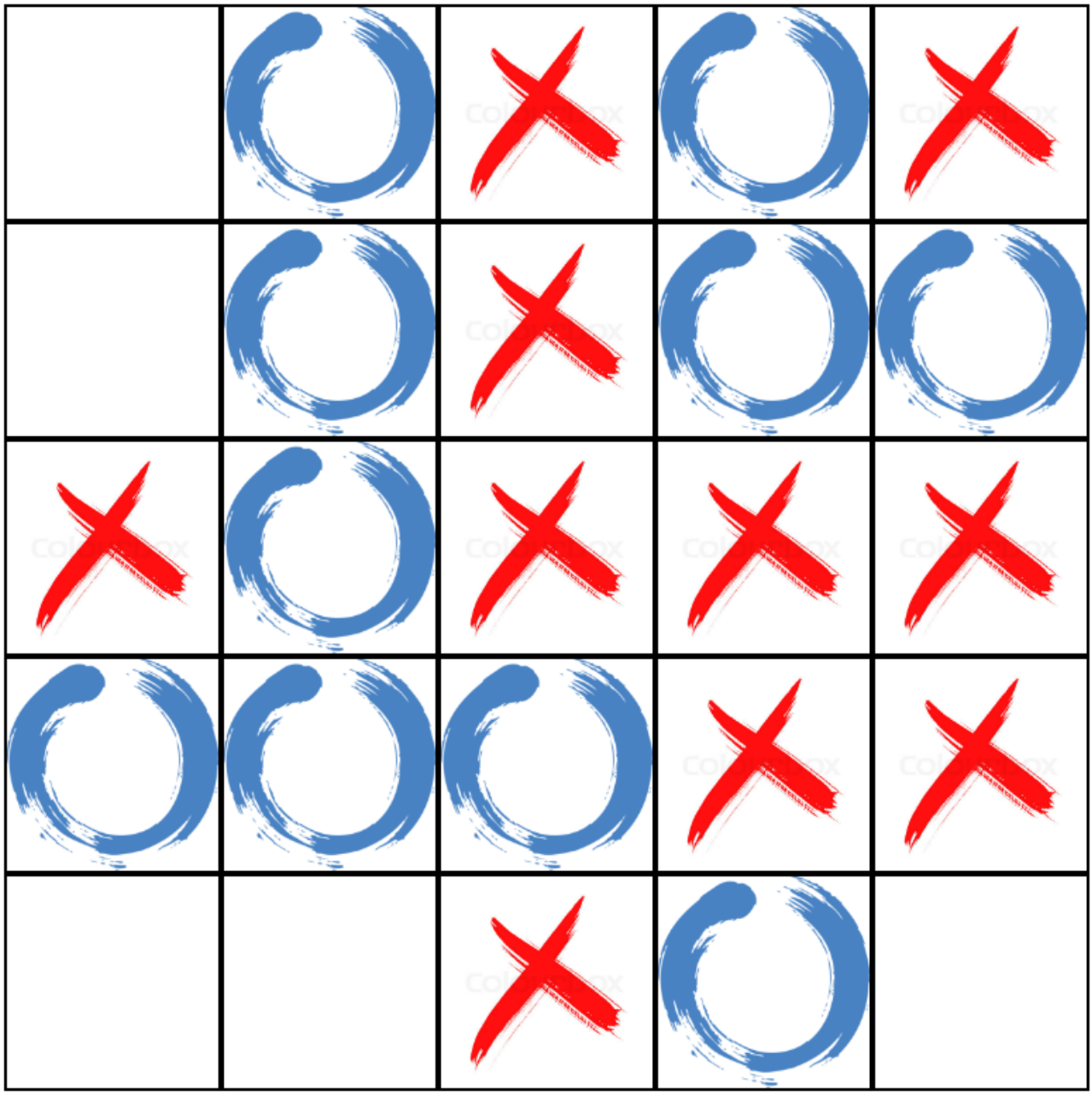
1.Постановка задачі

Завдання : Створити гру 5 в ряд розмірності поля NxN

2.Вибір інструменту для реалізації

Для створення программи було використано мову программування javascript та html5

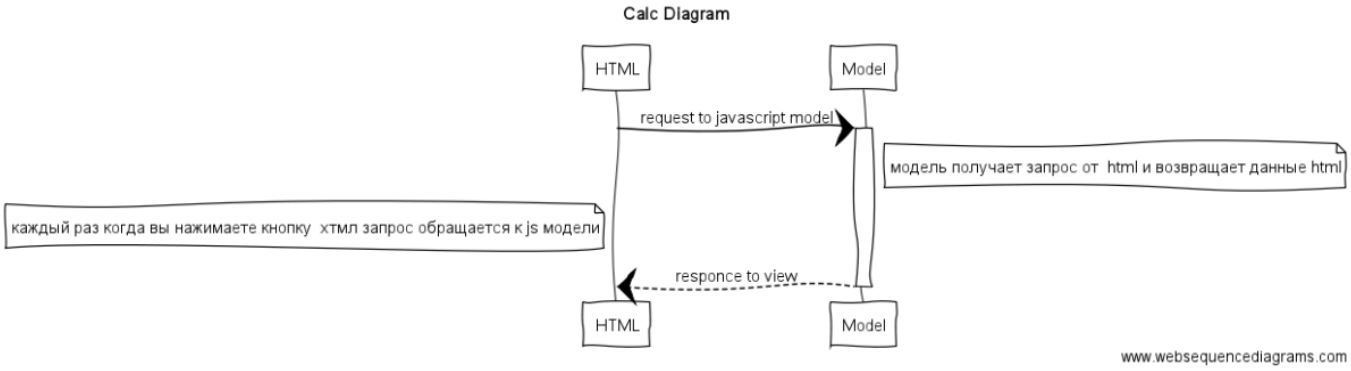
##3.Наочне представлення



Сделано Ищенко Никитой

Start game

enter number of rows and cols



##4.Використані бібліотеки Можливостей javascript та html5 було достатньо для створення данної программи можливості javascript використовувались для створення model і controller, а можливості html для створення представлення .

Лістінг

```
webpackJsonp([0],{

/***/ 0:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
    };
    var core_1 = __webpack_require__(1);
    var platform_browser_dynamic_1 = __webpack_require__(97);
    var app_component_1 = __webpack_require__(280);
    var TilesList_1 = __webpack_require__(282);
    var game_start_1 = __webpack_require__(284);
    var States_1 = __webpack_require__(283);
    var desk_1 = __webpack_require__(285);
    var end_game_1 = __webpack_require__(286);
    var MainApp = (function () {
        function MainApp(tiles) {
            this.tiles = tiles;
            this.begin = this.tiles.state == States_1.GAME_BEGIN;
            this.started = this.tiles.state === States_1.GAME_STARTED;
            this.row = "row";
```

```
            console.log(tiles.state);
        }
        MainApp.prototype.isBegin = function () {
            this.tiles.state === States_1.GAME_BEGIN;
        };
        MainApp.prototype.ngOnInit = function () {
            console.log(this.tiles.state);
        };
        MainApp.prototype.ngOnChanges = function () {
            this.begin = this.tiles.state == States_1.GAME_BEGIN;
            this.started = this.tiles.state === States_1.GAME_STARTED;
            console.log(this.tiles.state);
        };
        MainApp = __decorate([
            core_1.Component({
                selector: "app",
                directives: [app_component_1.Tile, game_start_1.GameStartComponent,
desk_1.Desk, end_game_1.GameEndComponent],
                styles: ["\n    .row{\n        display:flex;\n    }\n    "],
                template: "\n
<div>\n<h1>\u0421\u0434\u0435\u043B\u0430\u043D\u043E
\u0418\u0449\u0435\u043D\u043A\u043E
\u041D\u0438\u043A\u0438\u0442\u043E\u0439</h1>\n\n<end *ngIf=\"tiles.state===1\"
[winner]=\"tiles.winner\"></end>\n<start *ngIf=\"tiles.state===0\"></start> \n
<desk [tiles]=\"tiles\" *ngIf=\"tiles.state===2\"></desk>\n   \n    </div>"
            }),
            __metadata('design:paramtypes', [TilesList_1.TileList])
        ], MainApp);
        return MainApp;
    }());
    platform_browser_dynamic_1.bootstrap(MainApp, [TilesList_1.TileList]);


/***/ },

/***/ 280:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
    };
    var core_1 = __webpack_require__(1);
    var TileModel_1 = __webpack_require__(281);
    var TilesList_1 = __webpack_require__(282);
    var Tile = (function () {
```

```
        function Tile(tiles) {
            this.tiles = tiles;
        }
        Tile.prototype.onClick = function () {
            this.tile_model.click();
            console.log();
            if (this.tile_model.checkIFhasChains(5)) {
                console.log("winner is" + this.tile_model.status);
                this.tiles.endGame(this.tile_model.status);
            }
            if (this.tiles.checkN()) {
                this.tiles.endGame("NOBODY");
            }
        };
        Tile.prototype.ngOnInit = function () {
            console.log(this.tile_model);
        };
        __decorate([
            core_1.Input(),
            __metadata('design:type', TileModel_1.default)
        ], Tile.prototype, "tile_model", void 0);
        Tile = __decorate([
            core_1.Component({
                selector: 'tile',
                template: '<div (click)="onClick()"
[ngClass]="tile_model.status"><div>'
            }),
            __metadata('design:paramtypes', [TilesList_1.TileList])
        ], Tile);
        return Tile;
    }());
    exports.Tile = Tile;


/***/ },

/***/ 281:
/***/ function(module, exports) {

    "use strict";
    var TileModel = (function () {
        function TileModel(param) {
            this.status = "none";
            this.top = null;
            this.bot = null;
            this.left = null;
            this.right = null;
            this.left = param.left;
            this.right = param.right;
            this.bot = param.bot;
            this.top = param.top;
        }
        TileModel.prototype.click = function () {
            if (this.status === "none") {
                this.status = TileModel.type ? "crest" : "circle";
                TileModel.type = !TileModel.type;
            }
```

```
        };
        TileModel.prototype.checkIFhasChains = function (num) {
            if (this.check("left") + this.check("right") - 1 > num)
                return true;
            if (this.check("top") + this.check("bot") - 1 > num)
                return true;
            return false;
        };
        TileModel.prototype.check = function (param) {
            var node = this.getNode(param, this);
            for (var i = 0; node && node.status == this.status; i++) {
                i++;
                node = this.getNode(param, node);
            }
            return i;
        };
        TileModel.prototype.getNode = function (param, model) {
            var node;
            switch (param) {
                case "left":
                    return node = model.left;
                case "right":
                    return node = model.right;
                case "top":
                    return node = model.top;
                case "bot":
                    return node = model.bot;
                default:
                    return null;
            }
        };
        TileModel.type = false;
        return TileModel;
    }());
    Object.defineProperty(exports, "__esModule", { value: true });
    exports.default = TileModel;


/***/ },

/***/ 282:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
```

```
    };
    var core_1 = __webpack_require__(1);
    var TileModel_1 = __webpack_require__(281);
    var States_1 = __webpack_require__(283);
    var TileList = (function () {
        function TileList() {
            this.state = States_1.GAME_BEGIN;
        }
        TileList.prototype.endGame = function (winner) {
            this.winner = winner;
            this.state = States_1.GAME_END;
        };
        TileList.prototype.startGame = function (num) {
            this.createTiles(num);
            this.state = States_1.GAME_STARTED;
        };
        TileList.prototype.checkN = function () {
            for (var i = 0; i < this.tiles.length; i++) {
                for (var j = 0; j < this.tiles.length; j++) {
                    if (this.tiles[i][j].status === 'none')
                        return false;
                }
            }
            return true;
        };
        TileList.prototype.createTiles = function (num) {
            this.tiles = new Array();
            for (var i = 0; i < num; i++) {
                this.tiles[i] = new Array();
                for (var j = 0; j < num; j++)
                    this.tiles[i][j] = new TileModel_1.default({});
            }
            for (var i = 0; i < num; i++) {
                for (var j = 0; j < num; j++) {
                    this.tiles[i][j].bot = j + 1 >= num ? null : this.tiles[i][j +
1];
                    this.tiles[i][j].top = j - 1 < 0 ? null : this.tiles[i][j - 1];
                    this.tiles[i][j].left = i - 1 < 0 ? null : this.tiles[i -
1][j];
                    this.tiles[i][j].right = i + 1 >= num ? null : this.tiles[i +
1][j];
                }
            }
        };
        TileList = __decorate([
            core_1.Injectable(),
            __metadata('design:paramtypes', [])
        ], TileList);
        return TileList;
    }());
    exports.TileList = TileList;


/***/ },

/***/ 283:
/***/ function(module, exports) {
```

```
    "use strict";
    exports.GAME_BEGIN = 0;
    exports.GAME_END = 1;
    exports.GAME_STARTED = 2;


/***/ },

/***/ 284:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
    };
    var core_1 = __webpack_require__(1);
    var TilesList_1 = __webpack_require__(282);
    var GameStartComponent = (function () {
        function GameStartComponent(tiles) {
            this.tiles = tiles;
        }
        GameStartComponent.prototype.ngOnInit = function () { };
        GameStartComponent.prototype.onSubmit = function () {
            this.tiles.startGame(this.row_number);
        };
        GameStartComponent = __decorate([
            core_1.Component({
                selector: 'start',
                template: "<div>\n     <h1>Start game </h1>\n<h3>enter number of
rows and cols</h3>\n    <form (submit)=\"onSubmit()\">\n        <input
type=\"number\" [(ngModel)]=\"row_number\"/>\n    </form>\n</div>\n   "
            }),
            __metadata('design:paramtypes', [TilesList_1.TileList])
        ], GameStartComponent);
        return GameStartComponent;
    }());
    exports.GameStartComponent = GameStartComponent;


/***/ },

/***/ 285:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
```

```
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
    };
    var core_1 = __webpack_require__(1);
    var app_component_1 = __webpack_require__(280);
    var Desk = (function () {
        function Desk() {
            this.row = "row";
        }
        Desk.prototype.ngOnInit = function () {
        };
        __decorate([
            core_1.Input(),
            __metadata('design:type', Object)
        ], Desk.prototype, "tiles", void 0);
        Desk = __decorate([
            core_1.Component({
                selector: "desk",
                directives: [app_component_1.Tile],
                styles: ["\n    .row{\n        display:flex;\n    }\n    "],
                template: "\n    <ul>\n\n    <li  [ngClass]=\"row\" *ngFor=\"let
tileRow of tiles.tiles\" >\n\n           <div *ngFor=\"let tile of tileRow\">\n
<tile [tile_model]=\"tile\"></tile>\n           </div>\n    </li>\n    </ul>"
            }),
            __metadata('design:paramtypes', [])
        ], Desk);
        return Desk;
    }());
    exports.Desk = Desk;


/***/ },

/***/ 286:
/***/ function(module, exports, __webpack_require__) {

    "use strict";
    var __decorate = (this && this.__decorate) || function (decorators, target, key,
desc) {
        var c = arguments.length, r = c < 3 ? target : desc === null ? desc =
Object.getOwnPropertyDescriptor(target, key) : desc, d;
        if (typeof Reflect === "object" && typeof Reflect.decorate === "function")
r = Reflect.decorate(decorators, target, key, desc);
        else for (var i = decorators.length - 1; i >= 0; i--) if (d =
decorators[i]) r = (c < 3 ? d(r) : c > 3 ? d(target, key, r) : d(target, key)) || r;
        return c > 3 && r && Object.defineProperty(target, key, r), r;
    };
```

```
    var __metadata = (this && this.__metadata) || function (k, v) {
        if (typeof Reflect === "object" && typeof Reflect.metadata === "function")
return Reflect.metadata(k, v);
    };
    var core_1 = __webpack_require__(1);
    var TilesList_1 = __webpack_require__(282);
    var GameEndComponent = (function () {
        function GameEndComponent(tiles) {
            this.tiles = tiles;
        }
        GameEndComponent.prototype.ngOnInit = function () { };
        GameEndComponent.prototype.onSubmit = function () {
            this.tiles.startGame(this.row_number);
        };
        __decorate([
            core_1.Input(),
            __metadata('design:type', Object)
        ], GameEndComponent.prototype, "winner", void 0);
        GameEndComponent = __decorate([
            core_1.Component({
                selector: 'end',
                template: "<div>\n        <h1>Winner is {{winner}}</h1>\n
<h2>Start game again </h2>\n<h3>enter number of rows and cols</h3>\n    <form
(submit)=\"onSubmit()\">\n        <input type=\"number\"
[(ngModel)]=\"row_number\"/>\n    </form>\n</div>\n   "
            }),
            __metadata('design:paramtypes', [TilesList_1.TileList])
        ], GameEndComponent);
        return GameEndComponent;
    }());
    exports.GameEndComponent = GameEndComponent;


/***/ }

});
```