

## Лабараторна работа №4

**Тема:** Класи в мові PHP

**Мета роботи:** вивчити засоби роботи з класами для створення і вдосконалення програм на мові PHP

### Завдання

Системний блок (назва, тип, споживача потужність): укомплектована материнська плата, накопичувач, БП. Складальник. Список зібраних блоків.

### Код програми

```
<!DOCTYPE html>
<html>
<body>
<style>
    * {
        padding: 0;
        margin: 0;
        box-sizing: border-box;
    }

    html,
    body {
        font-family: 'Fira Code', monospace;
        width: 100%;
        height: 100%;
        font-size: 12px;
    }

    main {
        display: flex;
        height: 10%;
        align-items: center;
        justify-content: center;
    }

    p {
        cursor: pointer;
        position: relative;
        display: inline-block;
        font-size: 3rem;
        background: linear-gradient(to bottom, #000 60%, #fff 60%, #fff 100%);
        background-clip: text;
        -webkit-background-clip: text;
        color: transparent;
        background-repeat: no-repeat;
        transition: background 0.2s ease-out;
        white-space: nowrap;
    }

    span {
        position: relative;
    }

    span:before {
        content: "";
        position: absolute;
        left: 0;
        right: 0;
        height: 12px;
        background: #000;
        bottom: 9px;
```

```

    transition: all 0.2s ease-out;
}

p:hover {
    background-position: 0 11px;
}

span:hover:before {
    transform: translateY(10px)
}

table {
    font-family: arial, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

td, th {
    border: 1px solid #dddddd;
    text-align: center;
    padding: 8px;
}

tr:nth-child(even) {
    background-color: #dddddd;
}
</style>
<main>
    <span><p>Nadirian Hamlet. CIT-M120D. Laboratory work 4</p></span>
</main>
<?php
interface PrintItself {
    static function table_cols();
    static function table_heading();
    function table_data();
}

interface PrintPC {
    static function table_headers();
    function table_data();
}

function td($x) {
    return "<td>".$x."</td>";
}

function th($x) {
    return "<th>".$x."</th>";
}

function th_rowspan($x,$span) {
    return "<th rowspan='".$span."'>".$x."</th>";
}

function th_colspan($x,$span) {
    return "<th colspan='".$span."'>".$x."</th>";
}

class MotherBoard implements PrintItself {
    private $socket;
    private $chipset;
    private $ram;
    private $cpu;
    public function getSocket(){return $this->$socket;}
    public function getChipset(){return $this->$chipset;}
    public function getRam(){return $this->$ram;}
    public function getCpu(){return $this->$cpu;}
    public function setSocket($socket){$this->socket=$socket;}
    public function setChipset($chipset){$this->chipset=$chipset;}
    public function setRam($ram){$this->ram=$ram;}
    public function setCpu($cpu){$this->cpu=$cpu;}

    public function __construct($socket,$chipset,$ram,$cpu){
        $this->socket=$socket;
        $this->chipset=$chipset;
        $this->ram=$ram;
        $this->cpu=$cpu;
    }
}

```

```

    }

    public static function table_cols() {
        return 4;
    }
    public static function table_heading() {
        return th("Socket").th("Chipset").th("RAM").th("CPU");
    }
    public function table_data() {
        return td($this->socket).td($this->chipset).td($this->ram).td($this->cpu);
    }
}

class externalHardDrive implements PrintItself {
private $interface;
private $storageGB;
    public function getInterface(){return $this->$interface;}
    public function getStorageGB(){return $this->$storageGB;}
    public function setInterface($interface){$this->interface=$interface;}
    public function setStorageGB($storageGB){$this->storageGB=$storageGB;}
    public function __construct($interface,$storageGB){
        $this->interface=$interface;
        $this->storageGB=$storageGB;
    }
    public static function table_cols() {
        return 2;
    }
    public static function table_heading() {
        return th("Interface").th("Socket");
    }
    public function table_data() {
        return td($this->interface).td($this->storageGB."GB");
    }
}

class PowerSupply implements PrintItself {
    private $power;
    private $type;
    public function getPower(){return $this->$power;}
    public function getStorageGB(){return $this->$type;}
    public function setPower($power){$this->power=$power;}
    public function setType($type){$this->type=$type;}
    public function __construct($power,$type){
        $this->power=$power;
        $this->type=$type;
    }
    public static function table_cols() {
        return 2;
    }
    public static function table_heading() {
        return th("Power").th("Type");
    }
    public function table_data() {
        return td($this->power).td($this->type);
    }
}

class PersonalComputer implements PrintPC{
    private $picker;
    private $model;
    private $type;
    private $inputPower;
    private $powerConsumption;
    private $motherboard;
    private $HDD;
    public function __construct($picker,$model,$type,$motherboard,$HDD,$powerConsumption){
        $this->picker=$picker;
        $this->model=$model;
        $this->type=$type;
    }
}

```

```

        $this->motherboard=$motherboard ;
        $this->HDD=$HDD;
        $this->powerConsumption=$powerConsumption ;

    }

    public function getPicker(){
        return $this->picker;
    }

    static function table_headers() {
        return "<tr>".th_rowspan("Picker",2).th_rowspan("Model",2).th_rowspan("Type",2)
            .th_colspan("Motherboard",MotherBoard::table_cols()).th_colspan("External Hard
Drive",externalHardDrive::table_cols())
            .th_colspan("Power Supply",PowerSupply::table_cols())."</tr><tr>"

.MotherBoard::table_heading().externalHardDrive::table_heading().PowerSupply::table_heading()."</tr>";
    }

    function table_data() {
        return td($this->picker).td($this->model).td($this->type).$this->motherboard->table_data()
            . $this->HDD->table_data().$this->powerConsumption->table_data();
    }

}

function printTable($classname,$tab) {
    echo("<table border='1'>".call_user_func(array($classname,"table_headers"));
    foreach($tab as $v) {
        echo("<tr>". $v->table_data()."</tr>");
    }
    echo("</table>");
}

$pc = array(
    new PersonalComputer("Expert PC","Basic","Mini-tower",new MotherBoard("s-1200","Intel H410","8
GB","Core i3-10400F"),new externalHardDrive("SATA-3","512 GB"),new PowerSupply("500 BT","ATX")
),new PersonalComputer("Expert PC","Ultimate","Miditytower",new MotherBoard("s-1200","Intel H410","16
GB","Core i5-10400F"),
    new externalHardDrive("SATA-3","1024 GB"),new PowerSupply("550 BT","ATX")
),
    new PersonalComputer("Qube","QB","Miditytower",new MotherBoard("s-1200","Intel H410","24 GB","Core i7-
10400F"),
    new externalHardDrive("SATA-3","2048 GB"),new PowerSupply("600 BT","ATX")
),
    new PersonalComputer("Qbox","i3870","Miditytower",new MotherBoard("s-1200","Intel Z390","64 GB","Core i9-
9900K"),
    new externalHardDrive("SATA-3","4TB+960GB"),new PowerSupply("1000 BT","ATX")
),
    new PersonalComputer("Expert PC","Basic","Mini-tower",new MotherBoard("s-1200","Intel
H410","8 GB","Core i3-10400F"),new externalHardDrive("SATA-3","512 GB"),new PowerSupply("500 BT","ATX")
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    new externalHardDrive("SATA-3","1024 GB"),new PowerSupply("550 BT","ATX")
),
    new PersonalComputer("Qube","QB","Miditytower",new MotherBoard("s-1200","Intel H410","24 GB","Core i7-
10400F"),
    new externalHardDrive("SATA-3","2048 GB"),new PowerSupply("600 BT","ATX")
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    new PersonalComputer("Qbox","i3870","Miditytower",new MotherBoard("s-1200","Intel Z390","64 GB","Core i9-
9900K"),
    new externalHardDrive("SATA-3","4TB+960GB"),new PowerSupply("1000 BT","ATX")
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10400F"),
    new externalHardDrive("SATA-3","2048 GB"),new PowerSupply("600 BT","ATX")
)

```

```

    ),
    new PersonalComputer("Qbox","i3870","Miditytower",new MotherBoard("s-1200","Intel Z390","64 GB","Core i9-
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10400F"),
        new externalHardDrive("SATA-3","2048 GB"),new PowerSupply("600 BT","ATX")
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9900K"),
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9900K"),
        new externalHardDrive("SATA-3","4TB+960GB"),new PowerSupply("1000 BT","ATX")
    ),

```

```

        new PersonalComputer("Expert PC","Basic","Mini-tower",new MotherBoard("s-1200","Intel
H410","8 GB","Core i3-10400F"),new externalHardDrive("SATA-3","512 GB"),new PowerSupply("500 BT","ATX")
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        new externalHardDrive("SATA-3","2048 GB"),new PowerSupply("600 BT","ATX")
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        new externalHardDrive("SATA-3","4TB+960GB"),new PowerSupply("1000 BT","ATX")
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9900K"),
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        new externalHardDrive("SATA-3","1024 GB"),new PowerSupply("550 BT","ATX")
    ),
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10400F"),
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    ),
    new PersonalComputer("Qbox","i3870","Miditytower",new MotherBoard("s-1200","Intel Z390","64 GB","Core i9-
9900K"),
        new externalHardDrive("SATA-3","4TB+960GB"),new PowerSupply("1000 BT","ATX")
    )
);
function mysort($a,$b){
    return strcmp($a->getPicker(),$b->getPicker());
}
usort($pc,mysort);
printTable("PersonalComputer",$pc);

?>

</body>
</html>

```

localhost:8084/php localhost:8084/php

Nadrian Hamlet CTT M120D Laboratory work 4

Picker	Model	Type	Motherboard				External Hard Drive			Power Supply	
			Socket	Chipset	RAM	CPU	Interface	Socket	Power	Type	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
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Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Basic	Mini-tower	L-1200	Intel H410	8 GB	Core i5-10400F	SATA-3	512 GBGB	500 BT	ATX	
Expert PC	Ultimate	Midtower	L-1200	Intel H410	16 GB	Core i5-10400F	SATA-3	1024 GBGB	550 BT	ATX	
Qbox	i3870	Midtower	L-1200	Intel Z390	64 GB	Core i9-9900K	SATA-3	4TB+9600GB	1000 BT	ATX	
Qbox	i3870	Midtower	L-1200	Intel Z390	64 GB	Core i9-9900K	SATA-3	4TB+9600GB	1000 BT	ATX	

Рисунок 1 – работа програми

Висновок

Вивчили засоби роботи з класами для створення і вдосконалення програм на мові PHP.