

```
/** @return string[] [user=>, password=>] */  
function a() {  
    return [];  
}
```

```
$a = a()[''];
```

user
password

Enhance your IDE

Aurelijus Banelis

About me

Aurelijus Banelis

aurelijus@banelis.lt

aurelijus.banelis.lt

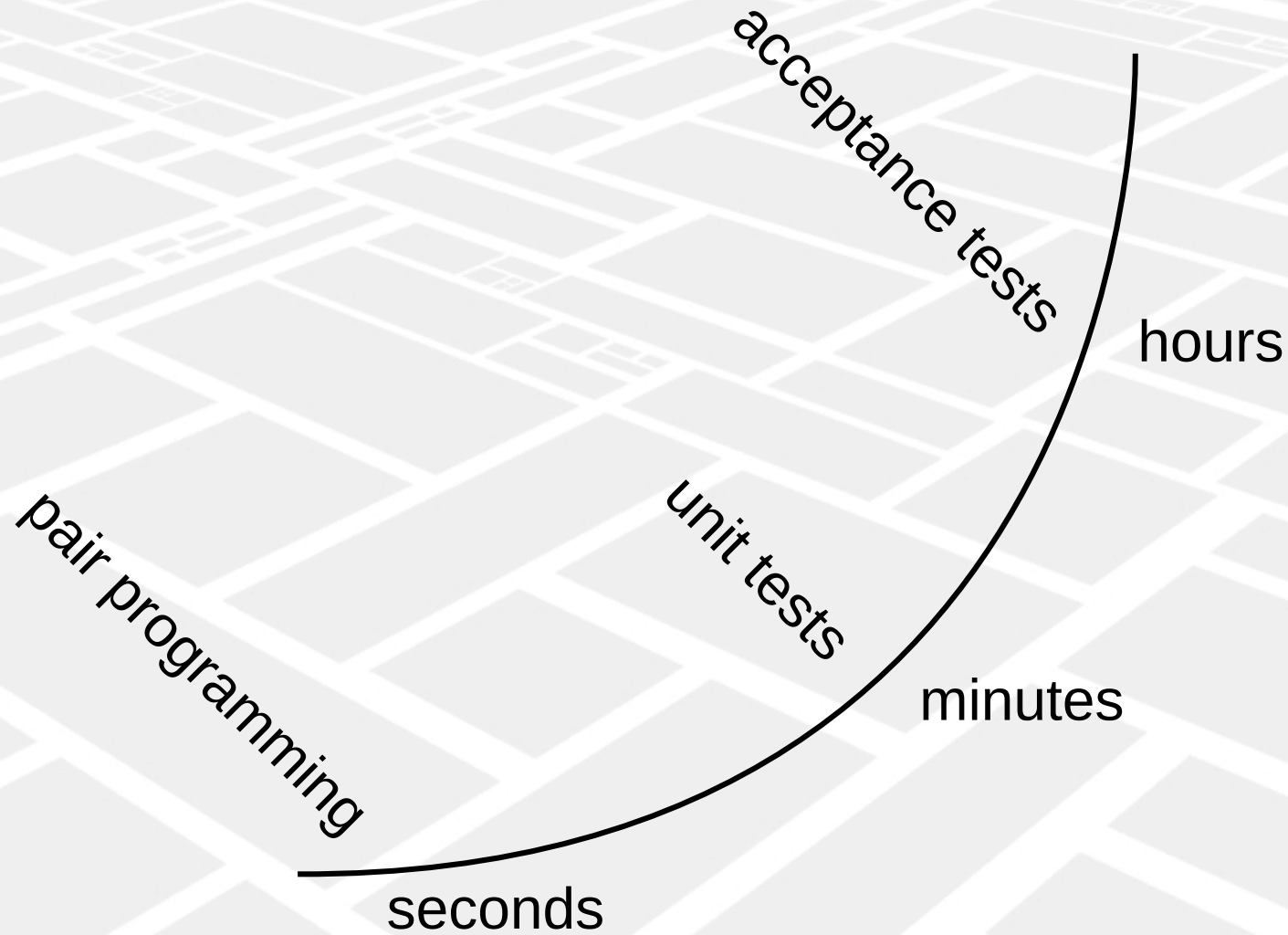
PHP developer



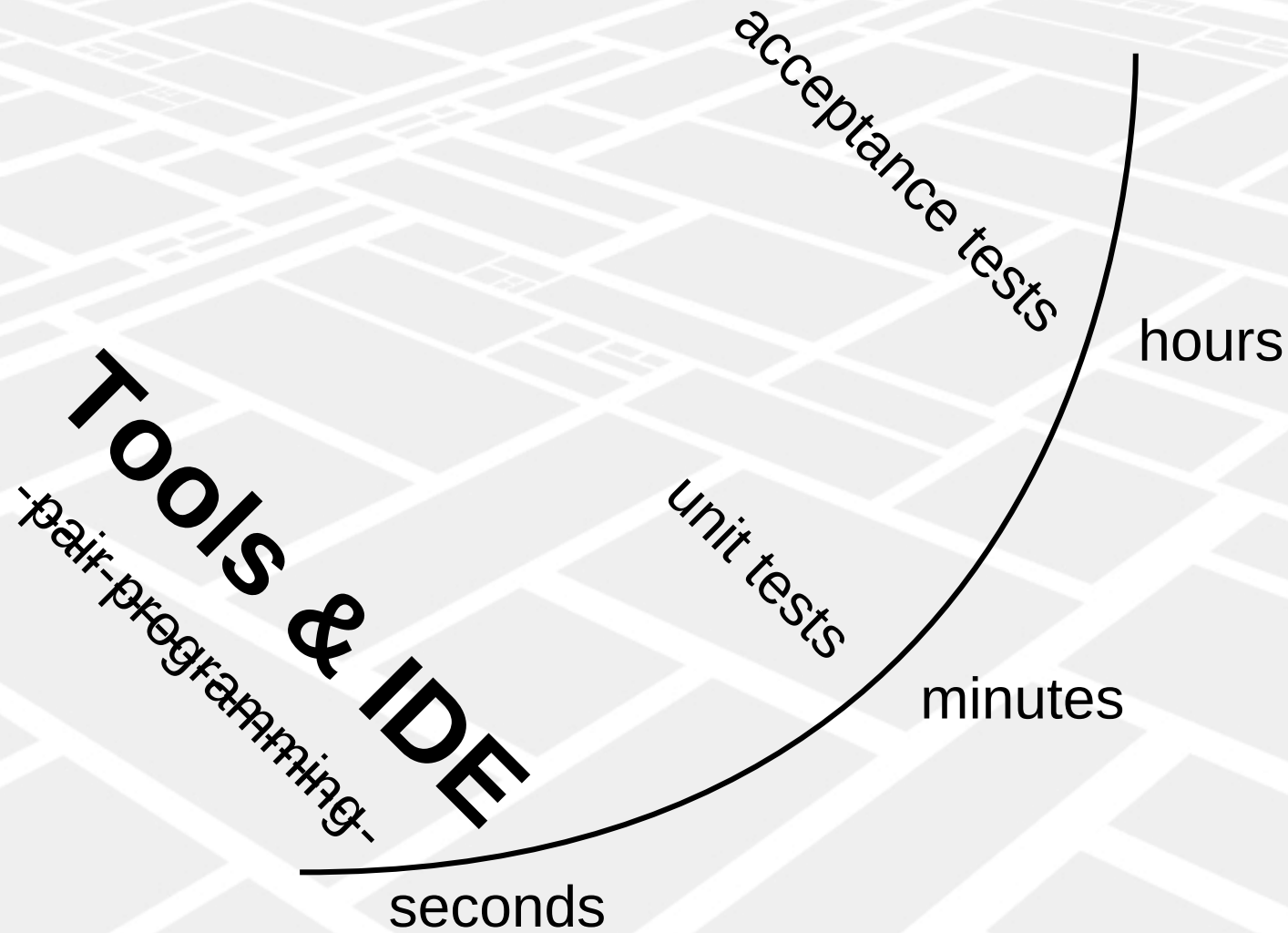
Context



Context



Context



Problem

**Fatal error: Call to a member function
getPrice() on null**

**Catchable fatal error: Argument 1 passed
to vat() must implement interface Currency**

**Fatal error: Call to undefined method
Article::isSellabl()**

Notice: Undefined index: bruto

Problem

Fatal error: Call to a member function
getPrice() on null **returns null**

Catchable fatal error: Argument 1 passed
to vat() must implement interface Currency
type hinting

Fatal error: Call to undefined method
Article::isSellabl() **typing mistakes**

Notice: Undefined index: bruto
typing mistakes

Problem

Fatal error: Call to a member function
getPrice() on null **returns null**

Catchable fatal error: Argument 1 passed
to vat() must implement interface Currency
type hinting

Fatal error: Call to undefined method
Article::isSellabl() **typing mistakes**

Notice: Undefined index: bruto **especially in
arrays!**
typing mistakes

Solution: Enhance IDE

1. Tell your IDE:
Annotate
2. Fool your IDE:
Generate
3. Enhance your IDE:
Write the plugin

Solution: Enhance IDE

Easy

DRY

1. Tell your IDE:

Annotate

2. Fool your IDE:

Generate

JAVA

3. Enhance your IDE:

Extensive

Write the plugin

1. Annotate

@var @param @return

@method

```
/** @method bool t(string $a) */  
class A {  
    (new A())->t('works');
```

@mixin

```
trait T { var $c; var $d; }  
/** @mixin T */  
$a=json_decode('{"c":1,"d":2}');  
$a->b
```

@SuppressWarnings(PHPMD)

2. Generate

```
if ("never" == "happens") {  
class a_parent extends oxArticle {}  
}
```

```
use Phalcon\Mvc\Controller;
```

[phalcon-devtools/ide/2.0.0](#)

```
$STATIC_METHOD_TYPES = array(  
oxNew('') => array(  
'oxcmp_basket' instanceof \oxcmp_basket,  
'oxwArticleBox' instanceof \oxwArticleBox,
```

[OXID example](#)

[PHPStorm docs](#)

3. Enhance

```
/** @return string[] [user=>, password=>] */  
function a() {  
    return [];  
}
```

```
$a = a()['|'];
```

user

password

github.com/aurelijusb/simple-phpstorm-plugin

3. PhpStorm PSI

Program
Structure
Interface




Evaluate Code Fragment

Code fragment:

```
ArrayAccessExpression arrayAccess = PsiTreeUtil.getParentOfType(parameters.getPosi  
FunctionReference reference = PsiTreeUtil.getChildrenOfType(arrayAccess, com.jetbr  
Function function = (Function) reference.resolve();  
PhpDocComment comment = function.getDocComment();  
PhpDocReturnTag returnTag = comment.getReturnTag();  
returnTag.getTagV
```

  `getTagValue()`

Result Press Ctrl+Period to choose the selected (or first) suggestion and insert a dot afterwards

▼  `result = {java.lang.String@17259} "[user=>, password=>]"`
▶  `value = {char[20]@17260}`
  `hash = 0`
  `hash32 = 0`

3. PhpStorm PSI

Program
Structure
Interface

position

Evaluate Code Fragment

Code fragment:

```
ArrayAccessExpression arrayAccess = PsiTreeUtil.getParentOfType(parameters.getPosi  
FunctionReference reference = PsiTreeUtil.getChildrenOfType(arrayAccess, com.jetbr  
Function function = (Function) reference.resolve();  
PhpDocComment comment = function.getDocComment();  
PhpDocReturnTag returnTag = comment.getReturnTag();  
returnTag.getTagV
```

 `getTagValue()`

Result Press Ctrl+Period to choose the selected (or first) suggestion and insert a dot afterwards

```
▼  result = {java.lang.String@17259} "[user=>, password=>]"  
  ►  value = {char[20]@17260}  
     hash = 0  
     hash32 = 0
```

3. PhpStorm PSI

`a()[""]`

`[""]`

`""`

position



**Program
Structure
Interface**

Evaluate Code Fragment

Code fragment:

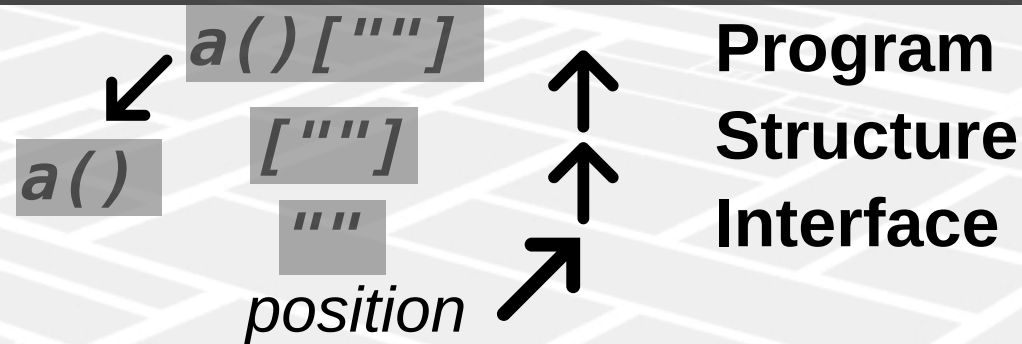
```
ArrayAccessExpression arrayAccess = PsiTreeUtil.getParentOfType(parameters.getPosi  
FunctionReference reference = PsiTreeUtil.getChildrenOfType(arrayAccess, com.jetbr  
Function function = (Function) reference.resolve();  
PhpDocComment comment = function.getDocComment();  
PhpDocReturnTag returnTag = comment.getReturnTag();  
returnTag.getTagV
```

`getTagValue()`

Result Press Ctrl+Period to choose the selected (or first) suggestion and insert a dot afterwards

```
▼ result = {java.lang.String@17259} "[user=>, password=>]"  
  ► value = {char[20]@17260}  
    hash = 0  
    hash32 = 0
```

3. PhpStorm PSI



Evaluate Code Fragment

Code fragment:

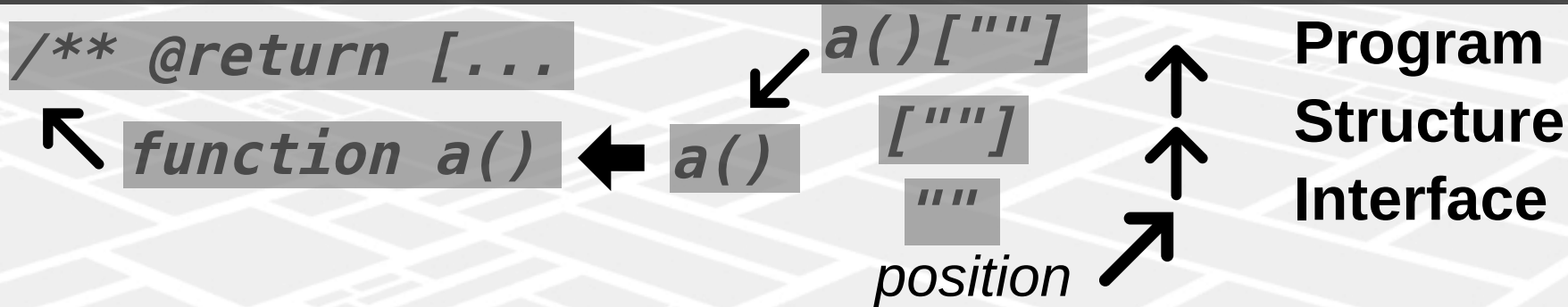
```
ArrayAccessExpression arrayAccess = PsiTreeUtil.getParentOfType(parameters.getPosi  
FunctionReference reference = PsiTreeUtil.getChildrenOfType(arrayAccess, com.jetbr  
Function function = (Function) reference.resolve();  
PhpDocComment comment = function.getDocComment();  
PhpDocReturnTag returnTag = comment.getReturnTag();  
returnTag.getTagV
```

`getTagValue()`

Result Press Ctrl+Period to choose the selected (or first) suggestion and insert a dot afterwards

```
▼ result = {java.lang.String@17259} "[user=>, password=>]"  
  ► value = {char[20]@17260}  
    hash = 0  
    hash32 = 0
```

3. PhpStorm PSI



Evaluate Code Fragment

Code fragment:

```
ArrayAccessExpression arrayAccess = PsiTreeUtil.getParentOfType(parameters.getPosi  
FunctionReference reference = PsiTreeUtil.getChildrenOfType(arrayAccess, com.jetbr  
Function function = (Function) reference.resolve();  
PhpDocComment comment = function.getDocComment();  
PhpDocReturnTag returnTag = comment.getReturnTag();  
returnTag.getTagV
```

`getTagValue()`

Result: Press Ctrl+Period to choose the selected (or first) suggestion and insert a dot afterwards

```
result = {java.lang.String@17259} "[user=>, password=>]"  
  value = {char[20]@17260}  
    hash = 0  
    hash32 = 0
```

References & links

- <https://github.com/aurelijusb/simple-phpstorm-plugin>
- <https://github.com/Haehnchen/idea-php-symfony2-plugin>
- <https://confluence.jetbrains.com/display/PhpStorm/Plugin+Development>
- <https://confluence.jetbrains.com/display/PhpStorm/Setting-up+environment+for+PhpStorm+plugin+development>
- <https://confluence.jetbrains.com/display/PhpStorm/PHP+Open+API>
- <https://confluence.jetbrains.com/display/IntelliJIDEA/Custom+Language>

Summary

**What will make you a
good developer
is the tools**

Questions?

```
/**  
* @method string ask(callable $presenter)  
*/
```