

Tus plugins te están pidiendo Behat

y aún no lo sabes...



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¿Qué vamos a hacer?

- Conocer Behat
- Diferencias PHPUnit y Behat
- Escribir test
- Montar entorno de pruebas
- Ejecutar test
- Ejemplos y casos de uso
- Aliados que nos ayudan a construir mejores test y código

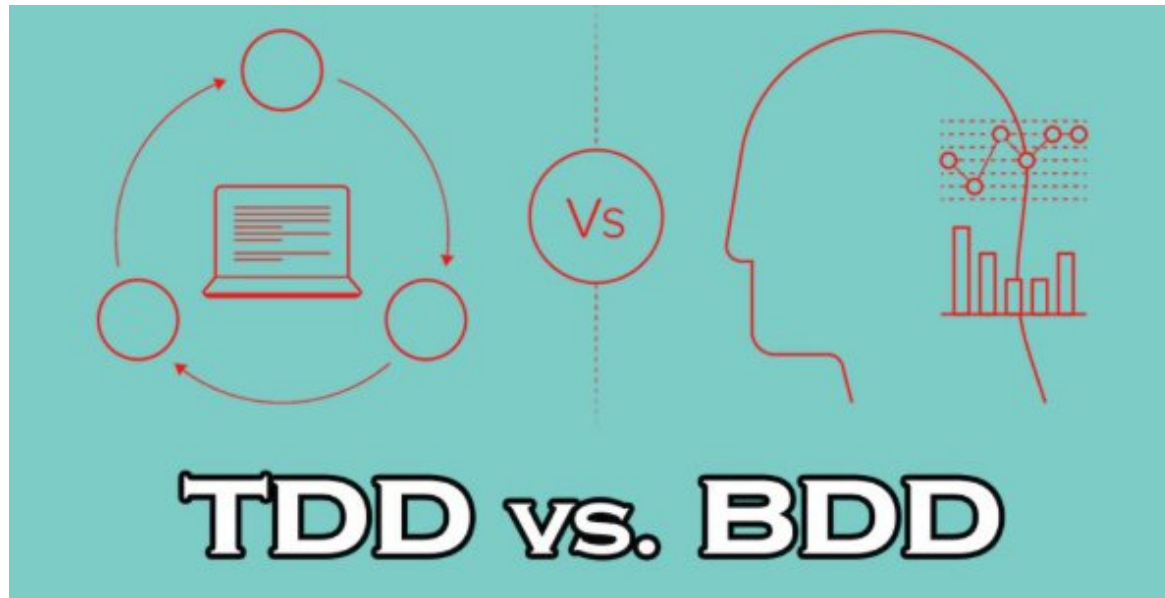
¿Qué es Behat?

- Behat es un framework PHP de pruebas funcionales orientadas a BDD.
- Implementación PHP de Cucumber (la herramienta base).



Testing en Moodle

PHPUnit



Behat

PHPUnit

- TDD
- Pruebas unitarias
- 1 test 1 función de código
- Bajo nivel. Sólo los leen los programadores :o

Behat

- BDD
- Pruebas funcionales
- 1 test 1 funcionalidad
- Alto nivel. Legibles por todos :)

Utilizamos BDD sin darnos cuenta

Solicitud de nueva funcionalidad

— Me gustaría que los próximos eventos del calendario sean visibles desde varias páginas —

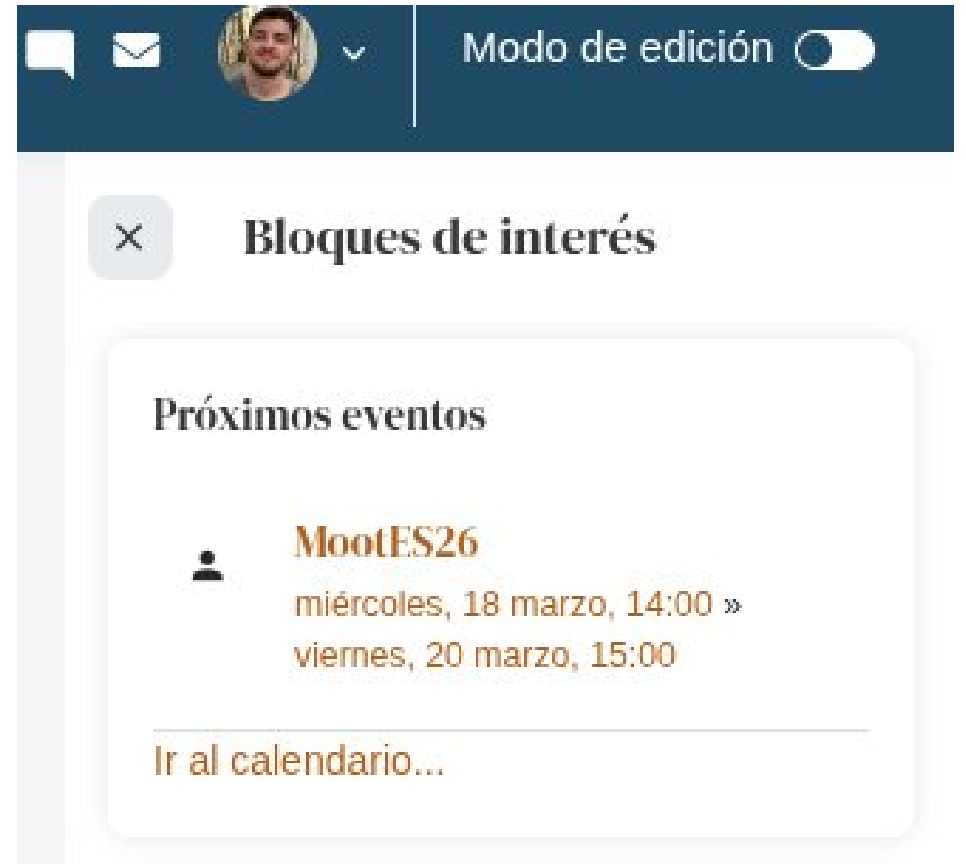
Proceso mental rápido

1. ¿Que información hay que mostrar?
2. Plugin de tipo... ¿Por qué?
3. ¿Quién puede ver la información?

.....

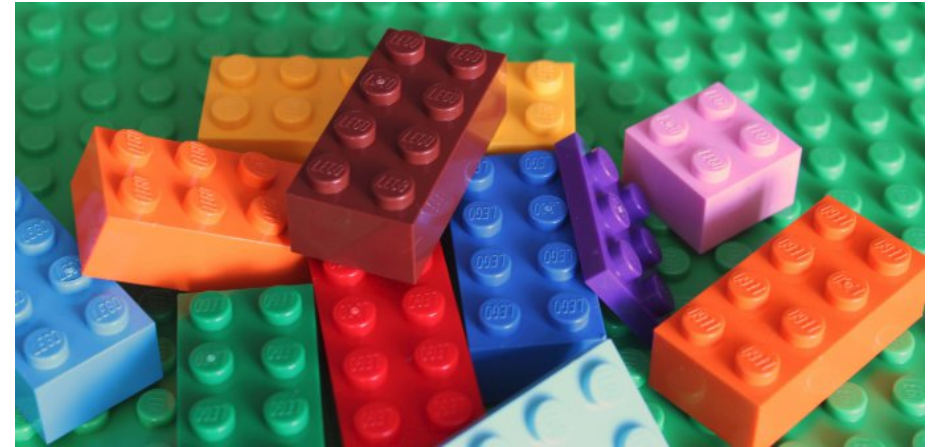
¡A programar!

Lo que hacemos en nuestra cabeza es definir de alguna forma y en base a nuestros conocimientos el **comportamiento esperado antes** de escribir una línea de **código**. Esto es BDD en esencia :)



Componentes de Behat

- Feature. Conjunto de Scenarios.
- Scenario. Lista de Steps.
- Step. Frase que describe una acción.
- Hay varios tipos de Steps:
 - Given. Describe el contexto inicial.
 - When. Acción que se realiza.
 - Then. Resultado de la acción.
 - And. Se utiliza para no repetir las palabras clave.
- Gherkin. Lenguaje de los tests. Utilizado para definir Steps que por debajo llaman a funciones PHP.
- Background. Sirve para evitar repetir los mismos Given en múltiples Scenarios del mismo feature. Mejorando legibilidad y optimización.
- Selenium. Herramienta que automatiza el navegador para que los test puedan interactuar con nuestra instancia de Moodle.
- Entities. Objetos que vamos a poder crear con Given (usuario, curso, bloque)
- Tags. Etiquetas para clasificar los tests (@javascript, @block, @block_calendar_upcoming, @_file_upload, @local_miplugincito)



Aproximación

Feature:

Scenario:

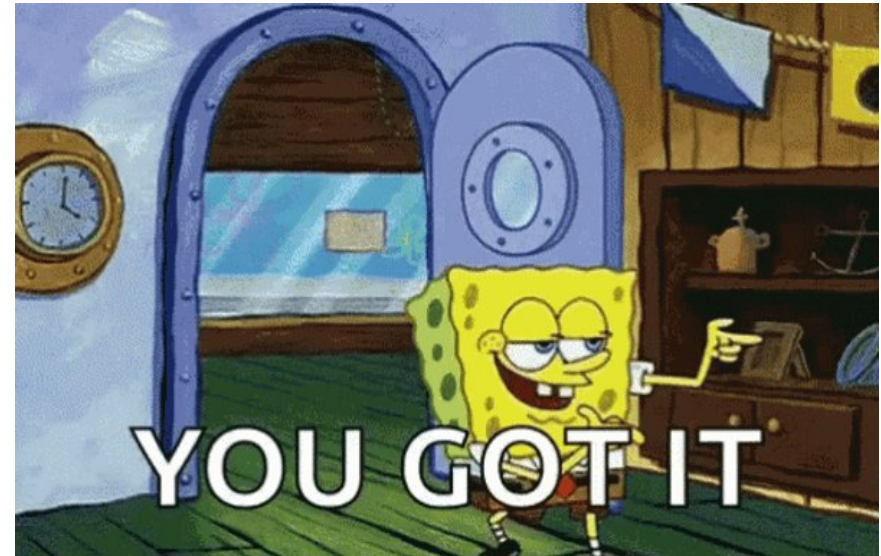
Given Usuario “profesor” existe en Moodle

When Inicio sesión en Moodle como “profesor”

And Me voy al curso “Curso de prueba”

And Añado un bloque “Próximos eventos”

Then Debería ver el bloque “Próximos eventos” en la página del curso



Escribiendo nuestro primer test

Paso 1: Preguntarnos ¿Qué probar?

- Funcionamiento general
- Funcionalidades **clave**
- **Mensajes** de éxito o error
- **Casos raros**
- ¡javascript!

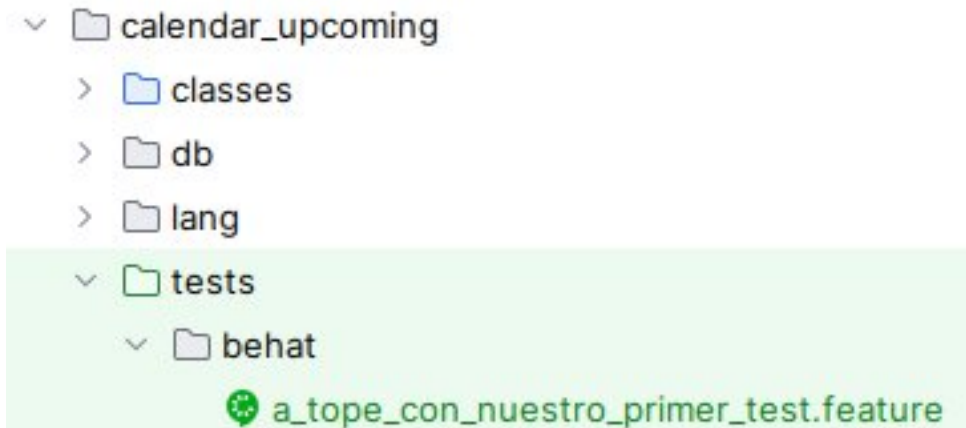


Escribiendo nuestro primer test

Paso 2: ¿Cómo empiezo?

1. <plugin>/tests/behata_tope_con_nuestro_primer_test.feature
2. Escribimos código Gherkin 🙄🙄

```
1  @block @block_calendar_upcoming @javascript
2  >> Feature:
3      Añadir el bloque de Próximos eventos en un curso,
4      crear un evento de sitio y comprobar que se muestra en el bloque.
5      Si el bloque de Próximos eventos está deshabilitado a nivel de sitio,
6      no se puede añadir a un curso.
7
8      Background:
9          # Recordamos que la sección Background sirve para agrupar pasos Given
10         # que se repiten en varios escenarios.
11
12 >> Scenario: Ver un evento de sitio en el bloque de próximos eventos
```



Escribiendo nuestro primer test

Paso 3: Hemos empezado, pero estamos en blanco. Gracias admin/tool/behat

✓ Definiciones de etapas

Tipo

Asignado. Proceso para preparar el entorno

Área

Moodle blocks

Contiene

add

Filtro de búsqueda

Adds the selected block. Editing mode must be previously enabled.

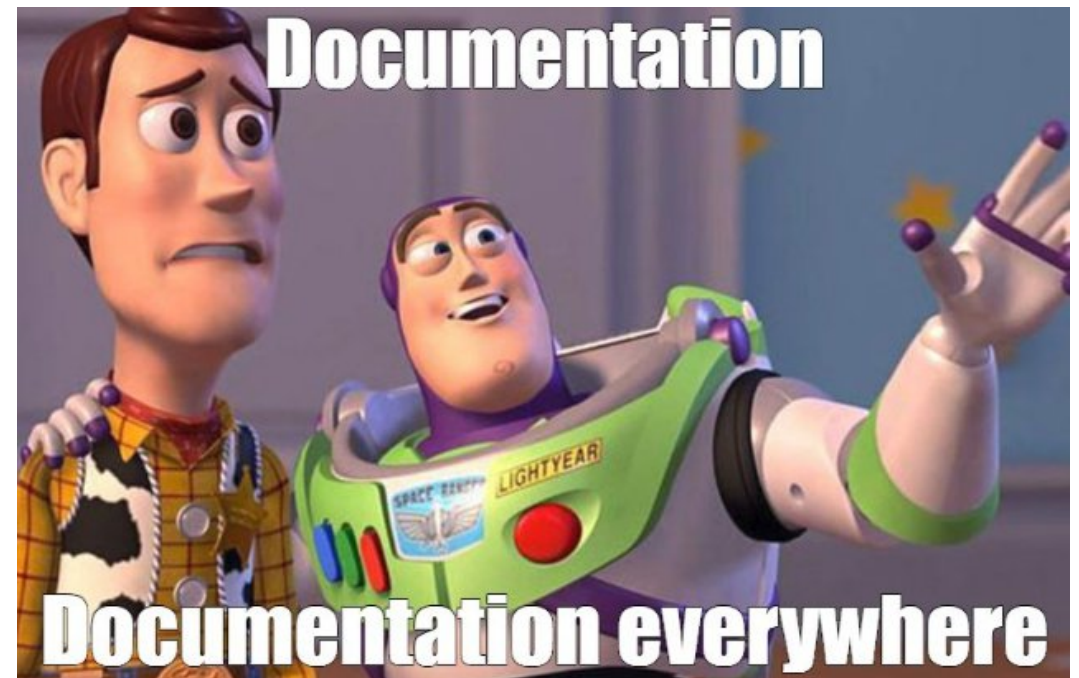
Given I add the "BLOCK_NAME_STRING" block

```
behat_blocks::i_add_the_block()
```

Escribiendo nuestro primer test

Paso 4: Read the docs!

- Visita los test de otros plugins parecidos y dedica tiempo a leer (como leyendo tu novela favorita)
- <https://moodledev.io/general/development/tools/behat>
- <https://docs.moodle.org/all/es/Behat>
- <https://cucumber.io/docs/gherkin/reference>
- <https://docs.behat.org/en/latest/>



Escribiendo nuestro primer test

```
1 @block @block_calendar_upcoming @javascript
2 >> Feature:
3     Añadir el bloque de Próximos eventos
4     crear un evento de sitio y comprobar que se muestra en el bloque.
5     Si el bloque de Próximos eventos está deshabilitado a nivel de sitio,
6     no se puede añadir a un curso.
7
8     Background:
9         Given the following "users" exist:
10            | username | firstname | lastname | email | idnumber |
11            | profesor1 | Héctor | Benedicte | hector@eligeapps.com | p1 |
12         And the following "blocks" exist:
13            | blockname | contextlevel | reference | pagetypepattern | defaultregion |
14            | calendar_upcoming | System | 1 | site-index | side-pre |
15
16 >> Scenario: Ver un evento de sitio en el bloque de Próximos eventos
17     Given I log in as "admin"
18     And I create a calendar event with form data:
19         | Type of event | site |
20         | Event title | MoodleMoot España 2026 |
21         | Description | El mejor evento del mundo |
22     And I log out
23     When I log in as "profesor1"
24     And I am on site homepage
25     Then I should see "MoodleMoot España 2026" in the "Upcoming events" "block"
26
```

Esto va teniendo sentido :)

¡Test real de core!

Somos tan buenos que hemos replicado un test de core:

https://github.com/moodle/moodle/blob/main/public/blocks/calendar_upcoming/tests/behat/block_calendar_upcoming_frontpage.feature

```
1  @block @block_calendar_upcoming
2  >> Feature: View a site event on the frontpage
3      In order to view a site event
4      As a teacher
5      I can view the event in the upcoming events block
6
7      Background:
8          Given the following "users" exist:
9              | username | firstname | lastname | email | idnumber |
10             | teacher1 | Teacher  | 1        | teacher1@example.com | T1 |
11          And the following "blocks" exist:
12             | blockname          | contextlevel | reference | pagetypepattern | defaultregion |
13             | calendar_upcoming | System      | 1         | site-index      | side-pre      |
14
15      @javascript
16  >> Scenario: View a site event in the upcoming events block on the frontpage
17      Given I log in as "admin"
18      And I create a calendar event with form data:
19          | id_eventtype | Site |
20          | id_name      | My Site Event |
21      And I log out
22      When I log in as "teacher1"
23      And I am on site homepage
24      Then I should see "My Site Event" in the "Upcoming events" "block"
25
```

Entorno de pruebas

¡Punto de control alcanzado!

Ahora que ya sabemos escribir tests, es momento de montar el entorno de pruebas para poder ejecutarlos.

Requisitos

- Instancia de Moodle
- Navegador (Firefox o Chrome)
- Selenium
- Java

Pasos

1. Configurar Selenium Server
2. Configurar Navegador
3. Configurar Moodle
4. Configurar e inicializar Behat



Configurando Selenium

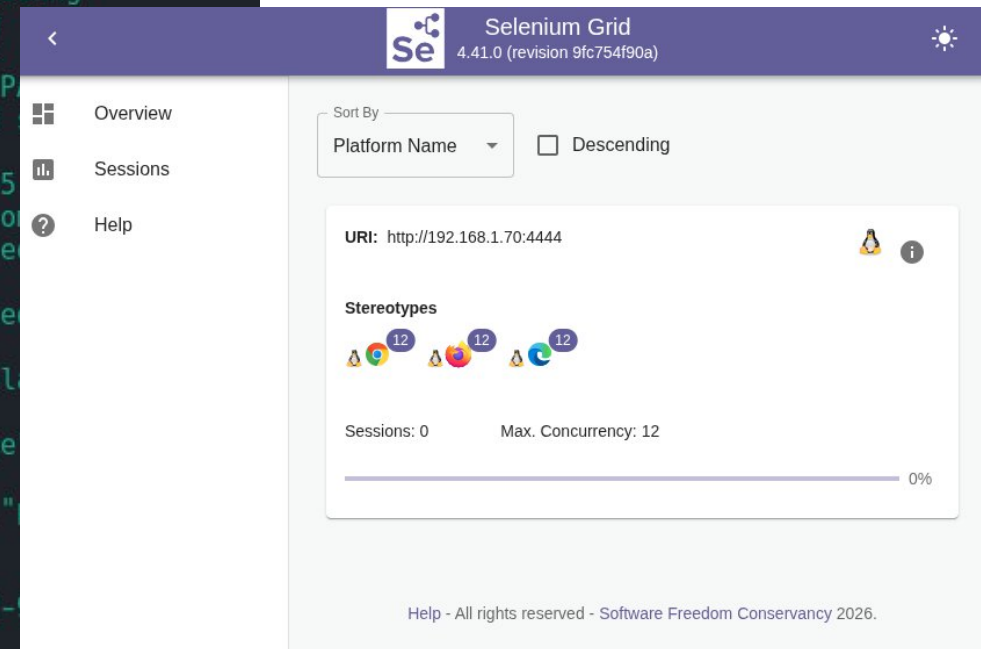
Herramienta que automatiza el navegador.

1. Descargamos Selenium Server (Grid) Latest stable version

<https://www.selenium.dev/downloads/>

2. Ejecutamos: `java -jar /home/hector/selenium-server-4.41.0.jar standalone`

```
teambehat:MOODLE_500_STABLE ?1 java -jar /home/hector/selenium-server-4.41.0.jar standalone
17:45:19.850 INFO [LoggingOptions.configureLogEncoding] - Using the system default encoding
17:45:19.852 INFO [OpenTelemetryTracer.createTracer] - Using OpenTelemetry for tracing
17:45:20.203 INFO [NodeOptions.getSessionFactories] - Detected 12 available processors
17:45:20.205 INFO [NodeOptions.discoverDrivers] - Looking for existing drivers on the P
17:45:20.205 INFO [NodeOptions.discoverDrivers] - Add '--selenium-manager true' to the
d to setup drivers automatically.
17:45:20.272 WARN [SeleniumManager.lambda$runCommand$1] - The chromedriver version (145
ected in PATH at /usr/bin/chromedriver might not be compatible with the detected chro
4.0.7559.59); currently, chromedriver is recommended for chrome 144.*, so it is advise
e driver in PATH and retry
17:45:20.283 WARN [SeleniumManager.lambda$runCommand$1] - Unable to discover proper mse
ion in offline mode
17:45:20.338 INFO [NodeOptions.report] - Adding Chrome for {"browserName": "chrome","pl
linux"} 12 times
17:45:20.339 INFO [NodeOptions.report] - Adding Edge for {"browserName": "MicrosoftEdge
e": "linux"} 12 times
17:45:20.339 INFO [NodeOptions.report] - Adding Firefox for {"browserName": "firefox","
"linux"} 12 times
17:45:20.364 INFO [Node.<init>] - Binding additional locator mechanisms: relative
17:45:20.381 INFO [LocalGridModel.setAvailability] - Switching Node cb78c771-7f11-4222-
bcc (uri: http://192.168.1.70:4444) from DOWN to UP
17:45:20.382 INFO [LocalNodeRegistry.add] - Added node cb78c771-7f11-4222-96ab-433a0e607bcc at http://
/192.168.1.70:4444. Health check every 120s
17:45:20.453 INFO [Standalone.execute] - Started Selenium Standalone 4.41.0 (revision 9fc754f90a): ht
tp://192.168.1.70:4444
```



Configurando Navegador

Instalado y presente en el \$PATH. Es necesario que el binario sea ejecutable desde cualquier ruta por el SO.

```
❏ ~ /usr/bin/firefox
❏ ~ /usr/bin/google-chrome
❏ ~ firefox
❏ ~ chrome
❏ ~ google-chrome
```

```
❏ ~ firefox --headless
*** You are running in headless mode.
```

Arch/Manjaro:

```
$ sudo pacman -S firefox
```

Ubuntu:

```
$ sudo apt install firefox
```

En MacOS:

```
$ brew install --cask firefox
```

En windows:

Descarga y ejecución instalador:

<https://www.firefox.com/es-ES/>

<https://moodledev.io/general/development/tools/behat/running#setting-up-your-browsers>

```
firefox --headless --no-remote --profile /tmp/firefoxv --screenshot https://moodlemoot.es/
```

Configurando Moodle

Plot twist:

- Los tests de Behat se ejecutan sobre otra instancia de Moodle.

```
18
19 // Behat settings :-)
20 $CFG->behat_wwwroot = 'http://127.0.0.1';
21 $CFG->behat_prefix = 'zbehat_';
22 $CFG->behat_faildump_path = '/srv/http/moodles/extra/behat';
23 $CFG->behat_dataroot = '/srv/http/moodles/moodledata_behat';
24 $CFG->behat_dbname = 'moodlelab_behat'; // Opcional
25 $CFG->behat_dbuser = 'moodleuser'; // Opcional
26 $CFG->behat_dbpass = 'moodlepass'; // Opcional
27 $CFG->behat_dbhost = 'localhost'; // Opcional
28 // 1. $CFG->behat_wwwroot -> Recordamos que Behat se ejecuta en otra instancia de Moodle,
29 // por lo que el wwwroot debe ser distinto a producción.
30 // 2. $CFG->behat_prefix -> Prefijo para las tablas de Behat.
31 // 3. $CFG->behat_faildump_path -> Ruta donde se guardarán
32 // los archivos de volcado en caso de fallo de las pruebas de Behat.
33 // 4. $CFG->behat_dataroot -> Ruta del dataroot específico para Behat.
34 // 5. Las variables db son opcionales. De no ponerlas las tablas de Behat se instalan en la BD
35 // moodlelab
36 // Toodo esto y mucho más en config-dist.php
37
38 require_once(__DIR__ . '/lib/setup.php');
```

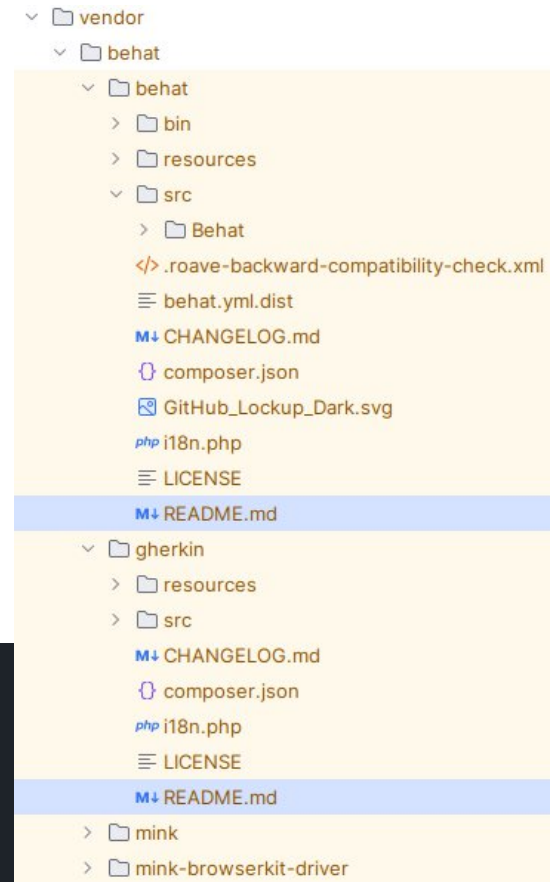
fichero: config.php

Configurando Behat

Inicializamos entorno:

`php admin/tool/behat/cli/init.php`

```
➤ /srv/http/moodles/moodlelab teambehat:MOODLE_500_STABLE php83 admin/tool/behat/cli/init.php
You are already using the latest available Composer version 2.9.5 (stable channel).
Installing dependencies from lock file (including require-dev)
Verifying lock file contents can be installed on current platform.
Nothing to install, update or remove
Generating autoload files
56 packages you are using are looking for funding.
Use the `composer fund` command to find out more!
-->System
++ xmldb_main_install: Success (2.48 seconds) ++
++ admin_apply_default_settings: Success (6.01 seconds) ++
++ Success (10.10 seconds) ++
-->aiplacement_courseassist
++ Success (0.03 seconds) ++
-->aiplacement_editor
++ Success (0.03 seconds) ++
-->aiprovider_azureai
++ Success (0.02 seconds) ++
-->aiprovider_ollama
++ Success (0.01 seconds) ++
-->aiprovider_openai
++ Success (0.01 seconds) ++
-->antivirus_clamav
++ Success (0.02 seconds) ++
-->availability_completion
++ Success (0.02 seconds) ++
-->availability_date
++ Success (0.02 seconds) ++
-->availability_grade
++ Success (0.01 seconds) ++
-->availability_group
++ Success (0.01 seconds) ++
-->availability_grouping
++ Success (0.02 seconds) ++
-->availability_profile
++ Success (0.02 seconds) ++
-->qtype_calculated
++ Success (0.05 seconds) ++
-->qtype_calculatedmulti
++ Success (0.02 seconds) ++
-->qtype_calculatedsimple
++ Success (0.02 seconds) ++
-->qtype_ddimageortext
++ Success (0.03 seconds) ++
-->qtype_ddmarker
++ Success (0.04 seconds) ++
-->factor_role
++ Success (0.03 seconds) ++
-->factor_sms
++ Success (0.03 seconds) ++
-->factor_token
++ Success (0.02 seconds) ++
-->factor_totp
++ Success (0.02 seconds) ++
-->factor_webauthn
++ Success (0.02 seconds) ++
-->upgrade_noncore()
++ Success (0.80 seconds) ++
Acceptance tests site installed
Creating Behat configuration ... done in 0.36 seconds.
Building theme CSS for boost [ltr] ... done in 1.95 seconds.
Building theme CSS for classic [ltr] ... done in 1.93 seconds.
Testing environment themes built
Acceptance tests environment enabled on http://127.0.0.1, to run the tests use:
vendor/bin/behat --config /srv/http/moodles/moodledata_behat/behatrun/behat/behat.yml
```



Configurando Behat

1. Se han creado las tablas en la BD moodlelab_behat (sin registros)
2. Se ha creado el directorio moodledata_behat (con sus cosas)
3. El entorno de pruebas está en ejecución :)






Acceptance test site Home

Acceptance test site

You are not logged in. ([Log in](#))
[Data retention summary](#)

Powered by [Moodle](#)

Acceptance test site Home **Dashboard** My courses Site administration    Edit mode

Dashboard

Welcome, Admin! 🖐️

Timeline

Next 7 days ▾

Sort by dates ▾

Search by activity type or name



No in-progress courses

¡Ejecutando nuestro test!

```
$ mkdir -p /srv/http/moodles/extra/behat
```

```
$ vendor/bin/behat --config behat.yml nombre_test.feature
```

```
~http/moodles/moodlelab P teambehat:MOODLE_500_STABLE ?1 vendor/bin/behat --config /srv/http/moodles/moodledata_behat/behatrunk/behat/behat.yml
blocks/calendar_upcoming/tests/behat/a tope con nuestro primer test.feature
Moodle 5.0.6+ (Build: 20260306), 2baad2002f5385ca5a700a4cb58ab8603e7fa52a
Php: 8.3.30, pgsq: 18.2, OS: Linux 6.12.73-1-MANJARO x86_64
Run optional tests:
- Accessibility: Yes
- SCSS deprecations: No
- Icon deprecations: Yes
Server OS "Linux", Browser: "firefox"
Started at 07-03-2026, 03:36
.....
1 scenario (1 passed)
8 steps (8 passed)
@m12.79s (53.03Mb)
```

¡Demo!

https://drive.google.com/file/d/1o3WjNgh1iuj3Cnm5UzYTAXePTIW67RIJ/view?usp=drive_link

Un poco más despacio

And I pause

```
16 >> Scenario: Ver un evento de sitio en el bloque de Próximos eventos
17     Given I log in as "admin"
18     And I pause
19     And I create a calendar event with form data:
20         | Type of event | site |
21         | Event title   | MoodleMoot España 2026 |
22         | Description   | El mejor evento del mundo |
23     And I pause
24     And I log out
25     And I pause
26     When I log in as "profesor1"
27     And I pause
28     And I am on site homepage
29     And I pause
30     Then I should see "MoodleMoot España 2026" in the "Upcoming events" "block"
```

Definición de entidades propias

blog/tests/behat/comment.feature

Background:

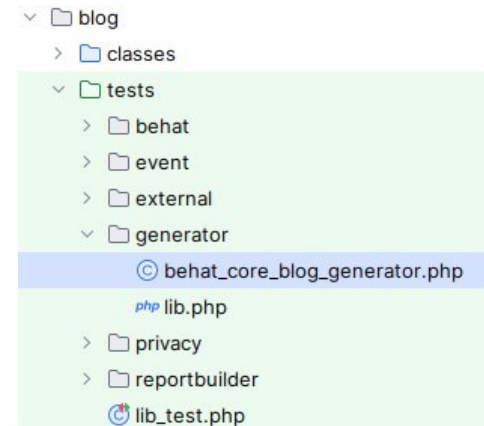
Given the following "users" exist:

username	firstname	lastname	email
testuser	Test	User	moodle@example.com
testuser2	Test2	User2	moodle2@example.com

And the following "core_blog > entries" exist:

subject	body	user
Blog post from user 1	User 1 blog post content	testuser

```
26  /**
27   * Behat data generator for core_blog.
28   *
29   * @package   core_blog
30   * @category  test
31   * @copyright 2022 Noel De Martin
32   * @license   http://www.gnu.org/copyleft/gpl.html GNU GPL v3 or later
33   */
no usages  ⓘ Noel De Martin
34  class behat_core_blog_generator extends behat_generator_base {
35
36     /**
37      * Get a list of the entities that can be created.
38      *
39      * @return array entity name => information about how to generate.
40      */
41     ⓘ protected function get_creatable_entities(): array {
42         return [
43             'entries' => [
44                 'singular' => 'entry',
45                 'datagenerator' => 'entry',
46                 'required' => ['subject', 'body'],
47                 'switchids' => ['user' => 'userid'],
48             ],
49         ];
50     }
51 }
52 |
```



Definición de entidades propias

Una entidad puede ser un objeto:

```
30  /**
31   * Blog module test data generator class
32   *
33   * @package   core_blog
34   * @category  test
35   * @copyright 2022 Noel De Martin
36   * @license   http://www.gnu.org/copyleft/gpl.html GNU GPL v3 or later
37   */
38  5 usages  ⓘ Noel De Martin
39  class core_blog_generator extends component_generator_base {
40
41     /**
42     * Create a blog entry
43     *
44     * @param array $data Entry data.
45     * @return blog_entry Entry instance.
46     */
47     ⓘ Noel De Martin
48     public function create_entry(array $data = []): blog_entry {
49         $data['publishstate'] = $data['publishstate'] ?? 'site';
50         $data['summary'] = $data['summary'] ?? $data['body'];
51
52         $entry = new blog_entry( id: null, $data);
53         $entry->add();
54
55         return $entry;
56     }
57 }
```

blog/tests/generator/lib.php

Definición de entidades propias

Una entidad también puede representar un registro en BD:

```
17  /**
18   * Completion test generator
19   *
20   * @package      core_completion
21   * @copyright    2023 Amaia Anabitarte <amaia@moodle.com>
22   * @license     http://www.gnu.org/copyleft/gpl.html GNU GPL v3 or later
23   */
1 usage  Amaia Anabitarte +1 *
24  class core_completion_generator extends component_generator_base {
25
26      /**
27       * Create default completion
28       *
29       * @param array|stdClass $record
30       * @return stdClass
31       */
2 usages  Amaia Anabitarte +1 *
32  public function create_default_completion($record): stdClass {
33      global $DB;
34      $record = (array) $record;
35  >   if (!array_key_exists( key: 'course', $record) || !is_numeric($record['course'])) {...}
38  >   if (!$DB->get_record( table: 'course', ['id' => $record['course']])) {...}
41  >   if (!array_key_exists( key: 'module', $record) || !is_numeric($record['module'])) {...}
44  >   if (!$DB->get_record( table: 'modules', ['id' => $record['module']])) {...}
47
48  >   $record = (object) array_merge([...], $record);
56   $record->id = $DB->insert_record( table: 'course_completion_defaults', $record);
57   return $record;
58  }
59 }
```

completion/tests/generator/lib.php

Definición de steps propios

Cuándo los steps ya creados se nos quedan cortos, necesitamos crear los nuestros.

mod/forum/tests/behat/posts_ordering_blog.feature

```
30  @javascript
31  >> Scenario: Replying to a blog post or editing it does not affect its display order
32  Given I am on the "Course blog forum" "forum activity" page logged in as student1
33  #
34  # Add three posts into the blog.
35  #
36  When I add a new topic to "Course blog forum" forum with:
37  | Subject | Blog post 1          |
38  | Message | This is the first post |
39  And I add a new topic to "Course blog forum" forum with:
40  | Subject | Blog post 2          |
41  | Message | This is the second post |
42  And I add a new topic to "Course blog forum" forum with:
43  | Subject | Blog post 3          |
44  | Message | This is the third post |
```

Definición de steps propios

Clase: mod/forum/tests/behat/behat_mod_forum.php

```
32  /**
33   * Forum-related steps definitions.
34   *
35   * @package    mod_forum
36   * @category   test
37   * @copyright  2013 David Monllao
38   * @license   http://www.gnu.org/copyleft/gpl.html GNU GPL v3 or later
39   */
no usages  ⓘ Michael Hawkins +11
40  class behat_mod_forum extends behat_base {
50
51     /**
52     * Adds a topic to the forum specified by it's name. Useful for the Announcements and blog-style forums.
53     *
54     * @Given /^I add a new topic to "(?P<forum_name_string>(?:[^\]|\\")*)" forum with:$/
55     * @param string $forumname
56     * @param TableNode $stable
57     */
no usages  ⓘ David Monllao +1
58     public function i_add_a_new_topic_to_forum_with($forumname, TableNode $stable) {
59         $this->add_new_discussion($forumname, $stable, get_string( identifier: 'addanewdiscussion', component: 'forum'));
60     }
```

Definición de steps propios

blocks/tests/behat/behat_blocks.php

```
33  /**
34  * Blocks management steps definitions.
35  *
36  * @package   core_block
37  * @category  test
38  * @copyright 2012 David Monllao
39  * @license   http://www.gnu.org/copyleft/gpl.html GNU GPL v3 or later
40  */
41  class behat_blocks extends behat_base {
42
43      /**
44       * Adds the selected block. Editing mode must be previously enabled.
45       *
46       * @Given /^I add the "(?P<block_name_string>(?:[^\"]|\\")*)" block$/
47       * @param string $blockname
48       */
49      public function i_add_the_block($blockname) {
50          $addblock = get_string( identifier: 'addblock' );
51          $this->execute( contextapi: 'behat_general::i_click_on_in_the', [$addblock, 'link_exact', '.add_block_button', 'css_element']);
52
53          if (!$this->running_javascript()) {
54              $this->execute( contextapi: 'behat_general::i_click_on_in_the', [$blockname, 'link_exact', '#region-main', 'css_element']);
55          } else {
56              $this->execute( contextapi: 'behat_general::i_click_on_in_the', [$blockname, 'link_exact', $addblock, 'dialogue']);
57          }
58      }
59  }
```

lib/tests/behat/behat_general.php

```
/**
 * Click on the element of the specified type which is located inside the second element.
 *
 * @When /^I click on "(?P<element_string>(?:[^\"]|\\")*)" "(?P<selector_string>[^\"]*)" in the "(?P<element_string>(?:[^\"]|\\")*)"$/
 * @param string $element Element we look for
 * @param string $selectortype The type of what we look for
 * @param string $nodeelement Element we look in
 * @param string $nodeselectortype The type of selector where we look in
 */
public function i_click_on_in_the($element, $selectortype, $nodeelement, $nodeselectortype) {
    $node = $this->get_node_in_container($selectortype, $element, $nodeselectortype, $nodeelement);
    $node->click();
}
```

Ejecutando con salida a fichero

vendor/bin/behat

--format=moodle_progress --out=std

--format=pretty --out=/srv/http/moodles/extra/behat/pretty.txt

--config=/srv/http/moodles/moodledata_behat/behatrun/behat/behat.yml

blocks/calendar_upcoming/

Especialmente útil para consultar errores.

Troubleshooting

- Un error típico es un step mal escrito.

```
/srv/h/moodles/moodlelab teambehat:MOODLE_500_STABLE !1 ?3 cat /srv/http/moodles/extra/behat/pretty.txt
@block @block_calendar_upcoming @javascript
Feature:
  Añadir el bloque de Próximos eventos en un curso,
  crear un evento de sitio y comprobar que se muestra en el bloque.
  Si el bloque de Próximos eventos está deshabilitado a nivel de sitio,
  no se puede añadir a un curso.

Background:

  Given the following "users" exist:
  | username | firstname | lastname | email | idnumber |
  | profesor1 | Héctor | Benedicte | hector@eligeapps.com | p1 |
  And the following "blocks" exist:
  | blockname | contextlevel | reference | pagetypepattern | defaultregion |
  | calendar_upcoming | System | 1 | site-index | side-pre |

Scenario: Ver un evento de sitio en el bloque de Próximos eventos

  Given I log in as "admin"
  And I create a calendar event with form data:
  | Type of event | site |
  | Event title | MoodleMoot España 2026 |
  | Description | El mejor evento del mundo |
  And I logg out
  X Coding error detected, it must be fixed by a programmer: Step 'I logg out' is undefined. (core\exception\coding_exception)
  | @AfterStep
  When I log in as "profesor1"
  And I am on site homepage

  Then I should see "MoodleMoot España 2026" in the "Upcoming events" "block"

@tool @tool_policy
Feature: Viewing acceptances, reports and acceptance on behalf of other users
```

```
1 scenario (1 failed)
8 steps (4 passed, 1 undefined, 3 skipped)
0m10.90s (53.28Mb)
```

Troubleshooting

- Escribir features e intentar ejecutarlos sin reinicializar el entorno:
- php admin/tool/behat/cli/init.php

```
~http/moodles/moodlelab P teambehat:MOODLE_500_STABLE ?1 vendor/bin/behat --config /srv/http/moodles/moodledata_behat/behatrun/behat/behat.yml
blocks/calendar_upcoming/tests/behat/a_tope_con_nuestro_primer_test.feature
Moodle 5.0.6+ (Build: 20260306), 2baad2002f5385ca5a700a4cb58ab8603e7fa52a
Php: 8.3.30, pgsq: 18.2, OS: Linux 6.12.73-1-MANJARO x86_64
Run optional tests:
- Accessibility: Yes
- SCSS deprecations: No
- Icon deprecations: Yes
Server OS "Linux", Browser: "firefox"
Started at 07-03-2026, 03:35

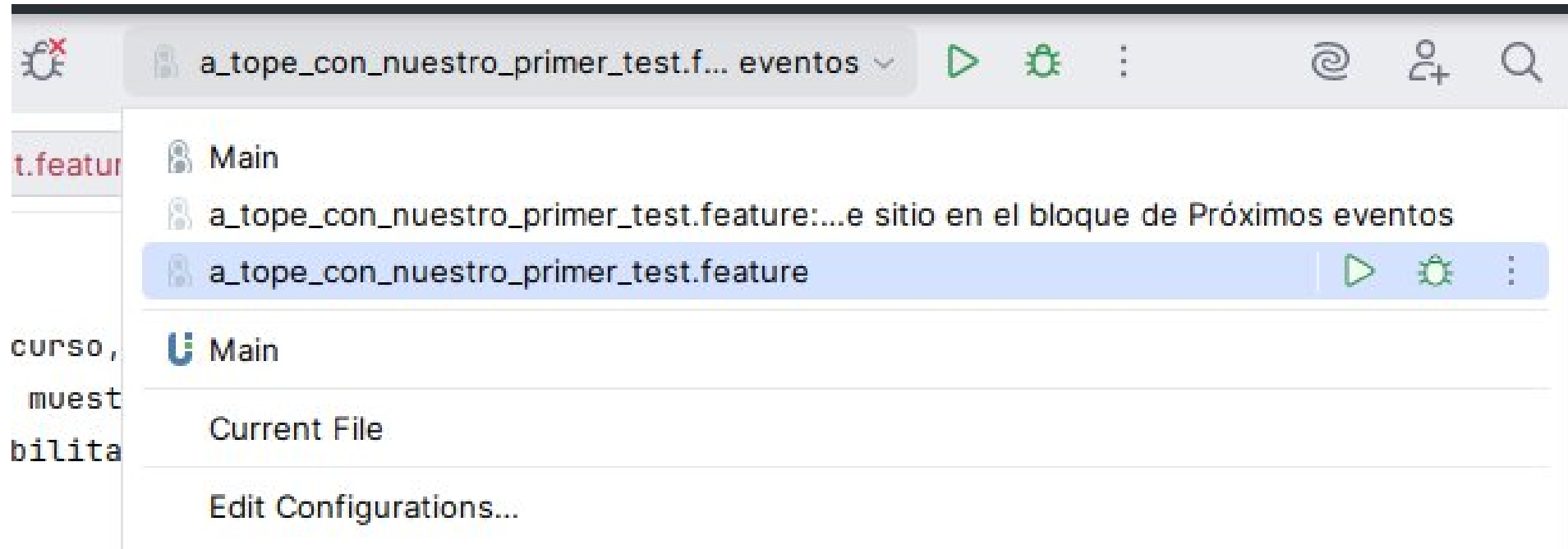
No scenarios
No steps
0m0.98s (48.93Mb)

In ExerciseController.php line 86:

  No specifications found at path(s) `blocks/calendar_upcoming/tests/behat/a_tope_con_nuestro_primer_test.feature`. This might be because of incorrect paths
  configuration in your `suites`.

behat [-s|--suite SUITE] [-f|--format FORMAT] [-o|--out OUT] [--format-settings FORMAT-SETTINGS] [--print-absolute-paths] [--editor-url EDITOR-URL] [--remov
e-prefix REMOVE-PREFIX] [--init] [--lang LANG] [--name NAME] [--tags TAGS] [--role ROLE] [--narrative NARRATIVE] [--story-syntax] [-d|--definitions DEFINITI
ONS] [--snippets-for [SNIPPETS-FOR]] [--snippets-type SNIPPETS-TYPE] [--append-snippets] [--no-snippets] [--strict] [--print-unused-definitions] [--order OR
DER] [--rerun] [--rerun-only] [--stop-on-failure] [--dry-run] [--allow-no-tests] [--] [<paths>...]
```

Ejecutando desde el IDE (PHPStorm)



- <https://www.jetbrains.com/help/phpstorm/using-behat-framework.html>

Buenas prácticas

- Solo probar una funcionalidad por Scenario
- Evitar selectores CSS y XPATH
- Mantener el orden en la carpeta /tests/behav
 - Nombres descriptivos
 - Carpeta fixtures
- Evitar steps innecesarios
 - Acceder a los destinos por el camino más corto.

Accesibilidad

- <https://moodledev.io/general/development/policies/accessibility/testing>

And the page should meet accessibility standards

—

And the "<element>" "<selector>" should meet accessibility standards

Cumpliendo estándar accesibilidad web: **WCAG 2.1 Nivel AA**
(estándar internacional de accesibilidad)

Ejemplos – qtype: Guess It

El qtype más molón del marketplace.

Question 1
Incorrect

Guess this English 'seasonal' saying.

Spring is in the a

Check

Spring is in the air.

You found 4 words out of 5.

6- Spring is in the allotment

5- Spring is in the country

4- Spring is in their garden

3- Spring is in my heart

2- Spring is a lovely period

1- summer is my favourite season



Guess It

Question types ::: qtype_guessit

Maintained by  Héctor Benedicte,  Joseph Rézeau

https://moodle.org/plugins/qtype_guessit

Ejemplos – qtype: Guess It

- ¿Algo mejorable?

```
Background:
  Given the following "users" exist:
    | username | firstname | lastname | email |
    | teacher | Mark     | Allright | teacher@example.com |
  And the following "courses" exist:
    | fullname | shortname | category |
    | Course 1 | C1       | 0       |
  And the following "course enrolments" exist:
    | user   | course | role |
    | teacher | C1    | editingteacher |

@javascript
Scenario: Create and preview a guessit question
  When I am on the "Course 1" "core_question > course question bank" page logged in as teacher
  And I add a "Guess It" question filling the form with:
    | Question name | guessit-001 |
    | Instructions  | Guess this English proverb. |
    | Guessit word(s) | Too many cooks spoil the broth. |
    | General feedback | Well-done! |
    | How many tries before giving help | 6 |
  Then I should see "guessit-001"

  # Preview it.
  And I choose "Preview" action for "guessit-001" in the question bank
  Then I should see "Guess this English proverb."
  And I set the field with xpath "//input[contains(@id, '1_p1')]" to "too"
  And I set the field with xpath "//input[contains(@id, '1_p2')]" to "much"
  And I set the field with xpath "//input[contains(@id, '1_p3')]" to "cooks"
  And I set the field with xpath "//input[contains(@id, '1_p4')]" to "spoil"
  And I set the field with xpath "//input[contains(@id, '1_p5')]" to "the"
  And I set the field with xpath "//input[contains(@id, '1_p6')]" to "broth"
  And I press "Check"
```

https://github.com/bhect0/moodle-qtype_guessit/blob/main/tests/behat/guessit_test.feature

Ejemplos – core: Página actividades

- Es necesario que todos los parches que preparemos estén cubiertos por Behat o PHPUnit, o por ambos.

<https://moodle.atlassian.net/browse/MDL-87054>

Course 1

Course Participants Grades **Activities** Badges More ▾

Activities

An overview of all activities in the course, with dates and other information.

> 📁 Assignments

▾ 📄 Databases

Name	Total entries	My entries	Comments
Database1 New subsection	0	0	-

> 🔊 Feedback

> 💬 Forums

▾ 📖 Glossaries

Name	Comments	Total entries	My entries
Glossary New section	-	1	0

Closed ▾ ✓ Fixed ⚡ ✖ Improve Bug

▾ Details

Priority Minor

Affects versions 5.1

Fix versions 5.1.1

Components Glossary

Labels triaged

Assignee Héctor Benedicte

Reporter Sara Arjona

Peer reviewer Luca Bösch

Component Lead Review Yes

Integrator RT Rajneel Totaram

Tester Kim Jared Lucas

Participants CI Bot Héctor Benedicte Kim Jared Lucas Luca Bösch Mihail Geshoski RT Rajneel Totaram Sara Arjona

Ejemplos – core: Página actividades

public/mod/glossary/tests/behat/overview_report.feature

```
69     Then the following should exist in the "Table listing all Glossary activities"
```

```
    table:
```

```
70     -      | Name | Comments | Total entries | My entries |
71     -      | Glossary without defaultapproval | 0 | 2 | 3 |
72     -      | Glossary without entries | - | 0 | 0 |
73     -      | Glossary with comments | 2 | 1 | 1 |
```

```
74
```

```
69     Then the following should exist in the "Table listing all Glossary activities"
```

```
    table:
```

```
70     +      | Name | Total entries | My entries | Comments |
71     +      | Glossary without defaultapproval | 2 | 3 | 0 |
72     +      | Glossary without entries | 0 | 0 | - |
73     +      | Glossary with comments | 1 | 1 | 2 |
```

```
74
```

Aliados

- admin/tool/behats
 - <https://moodledev.io/general/development/tools/behats#admin-tool-acceptance-testing>
- MDLCode
 - <https://mdlcode.dev/>
- Moodle Plugin CI
 - <https://moodlehq.github.io/moodle-plugin-ci/>
- GitHub Copilot
 - <https://github.com/features/copilot>
 - <https://github.com/github/awesome-copilot/blob/main/instructions/moodle.instructions.md>
 - > Abierto a mejoras :)
- MDK (Moodle Development Kit)
 - <https://moodledev.io/general/development/tools/mdk>
 - <https://github.com/FMCorz/mdk>
- Moodle Selenium Grid
 - <https://github.com/HuongNV13/moodle-selenium-grid>

Moodle Academy

- Acceptance Testing with Behat
 - <https://moodle.academy/course/view.php?id=158>
- Unit Testing in Moodle
 - <https://moodle.academy/course/view.php?id=55>
- Working with Moodle Development Kit (MDK)
 - <https://moodle.academy/course/view.php?id=171>



Documentación épica

- Moodle devdocs

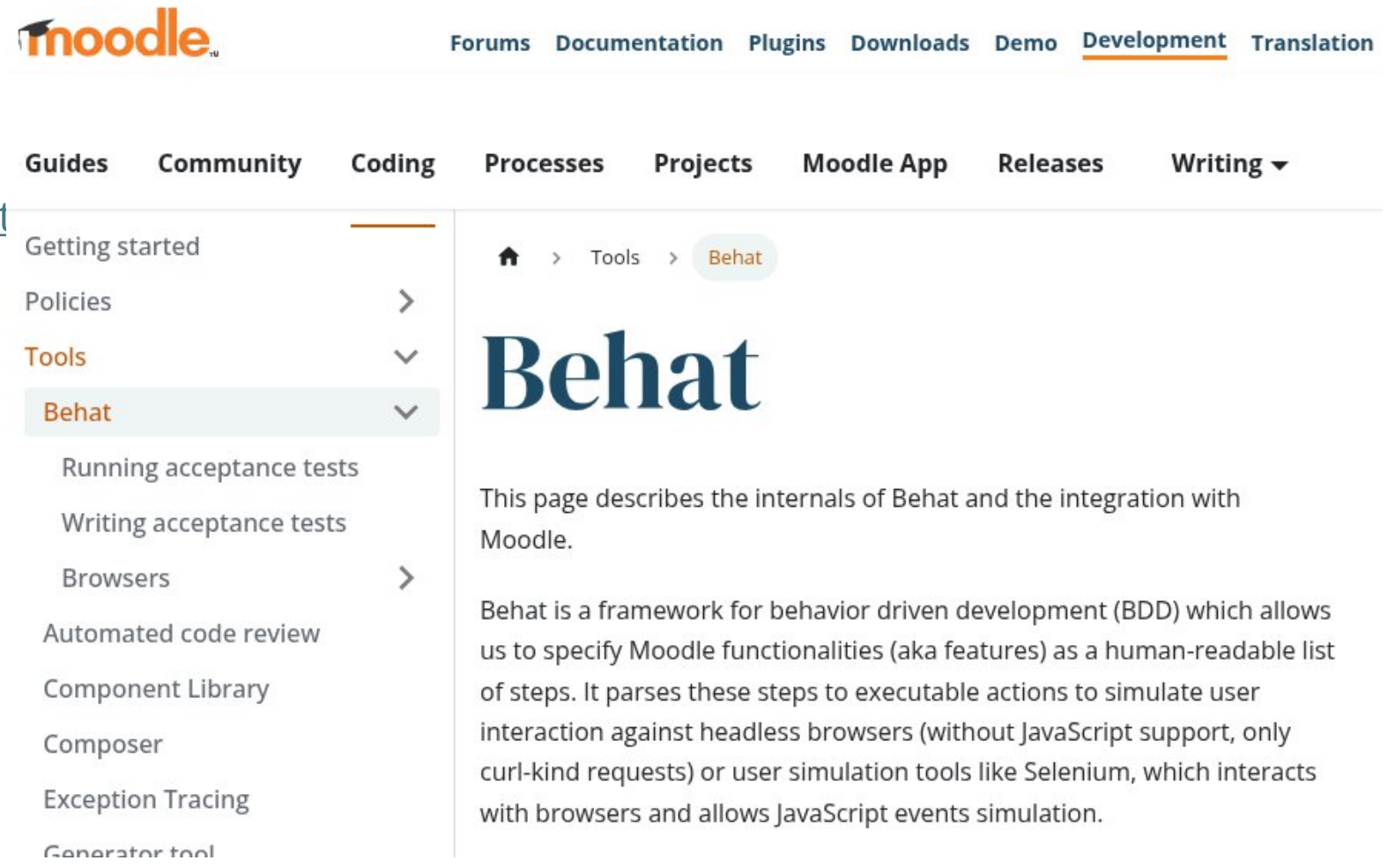
- <https://moodledev.io/general/development/tools/behats>

- Cucumber docs

- <https://cucumber.io/docs/>

- Behat

- <https://docs.behat.org/en/latest/>



The screenshot shows the Moodle Development Documentation website. The top navigation bar includes links for Forums, Documentation, Plugins, Downloads, Demo, Development (highlighted), and Translation. Below this is a secondary navigation bar with links for Guides, Community, Coding (highlighted), Processes, Projects, Moodle App, Releases, and Writing. The main content area is titled "Behat" and contains the following text:

Getting started

Policies >

Tools >

Behat >

- Running acceptance tests
- Writing acceptance tests
- Browsers >
- Automated code review
- Component Library
- Composer
- Exception Tracing
- Generator tool

Home > Tools > Behat

Behat

This page describes the internals of Behat and the integration with Moodle.

Behat is a framework for behavior driven development (BDD) which allows us to specify Moodle functionalities (aka features) as a human-readable list of steps. It parses these steps to executable actions to simulate user interaction against headless browsers (without JavaScript support, only curl-kind requests) or user simulation tools like Selenium, which interacts with browsers and allows JavaScript events simulation.

¡Gracias #moodlers!



Héctor Benedicte Pérez

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