



Unippets

• • •

Platforma e-learningowa dla szkół wyższych

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1. Czym jest Unippets?

Aplikacja webowa działająca w przeglądarce



Dla wykładowców IT...



I ich studentów

Elevator Pitch:

Unippets jest aplikacją webową skierowaną do wykładowców akademickich z kierunków informatycznych, którzy potrzebują móc w łatwy sposób publikować materiały dla studentów. Umożliwia umieszczanie na platformie skryptów zawierających wykonywalne fragmenty kodu, diagramy itp. oraz tworzenie quizów i form sprawdzania wiedzy. W odróżnieniu od innych produktów na rynku Unippets jest szybka i wygodna w obsłudze oraz umożliwia łatwe dodawanie różnorodnych materiałów.



2. Obecna sytuacja

- System UPeL - czasochłonne i mało wygodne dodawanie nowych materiałów przez wykładowcę
- Problemy z formatowaniem fragmentów kodu
- Wielość platform, z których korzystają prowadzący, co utrudnia orientację studenta w materiałach do przerobienia oraz konsumuje czas



3. Zaspokajane potrzeby

- rosnąca liczba studentów kierunków informatycznych - ujednolicenie i usprawnienie kontaktu student - wykładowca
- wykładowcy: powstanie narzędzie, które ułatwi oraz usprawni ich pracę, a także skutecznie i szybko sprawdzi wiedzę studentów
- studenci: dojdzie do ujednolicenia platform, na których są umieszczane materiały, gdyż wszyscy wykładowcy będą chętnie korzystać z Unippets





4. Wykorzystane możliwości

- Wykładowcy posiadają własne lub służbowe laptopy/komputery
- Podobnie studenci - studia informatyczne wymagają posiadania komputera. Alternatywą korzystanie z komputera w bibliotece akademickiej
- Obie grupy przyszłych użytkowników nie mają trudności z nauką nowych technologii, a wiele już znają



```
h2s@forum:~$ ls
apache-netbeans_15-1_all.deb  NetBeansProjects
deb                           opt
Desktop                         Pictures
Documents                        Public
Downloads                        qcad-3.27.6-trial-linux-x86_64.run
hyper.deb                       snap
Music                           SoftMaker
netbeans                         softmaker-freeoffice-2021_1050-01_amd64.deb
netbeans-15-bin.zip              Templates
netbeans-15-bin.zip.1             Videos
h2s@forum:~$
```

5. Korzyści dla użytkowników

- Wykładowcy: oszczędność czasu, przyjemność z dodawania materiałów, przekazywanie w obrazowy sposób wiedzy, którą ciężko przekazać słowami
- Studenci: jednolitość i jasność czego wymaga prowadzący, łatwiejsza nauka dzięki interaktywnym materiałom, oszczędność czasu
- Przejrzysta komunikacja student - wykładowca



6. Główni aktorzy systemu

- prowadzący - może dodawać własne skrypty i materiały, pisać krótkie wiadomości opisujące dodane materiały, tworzyć quizy, dodawać formy sprawdzania wiedzy, ustalać ich punktację oraz przeglądać oceny studentów
- student - może przeglądać i pobierać skrypty umieszczone przez prowadzącego, rozwiązywać quizy i sprawdziany, przeglądać oceny z nich, a także tworzyć własne skrypty i dzielić się nimi





7. Rozwiązania podobne/konkurencyjne

- UPeL
 - **zalety:** organizacja kursów i bloków tematycznych, duże możliwości konfiguracyjne dla kursów i sprawdzianów
 - **wady:** niejednolitość między kursami, skomplikowany proces dodawania materiałów, trudność w dodawaniu fragmentów kodu, problemy z dodawaniem dużych plików
- MS Teams
 - **zalety:** wbudowane edytory, które nawiązują do nawyków użytkowników
 - **wady:** Problem z tworzeniem materiałów zawierających fragmenty kodu, duża liczba kanałów w obrębie kursu
- Język Markdown i jego edytory
 - **zalety:** live preview, łatwość w dodawaniu fragmentów kodu, sam język jest prosty
 - **wady:** brak programu, który umożliwiłby udostępnianie grupom materiałów oraz tworzenie form sprawdzania wiedzy



8. Główne funkcje systemu

- Wbudowane edytory do tworzenia skryptów, sprawdzianów i quizów z live preview tworzonych treści
- Możliwość zawarcia code snippets w materiałach bez konieczności dodatkowego formatowania
- Możliwość tworzenia materiałów interaktywnych - fragmenty kodu wykonywalnego, który można uruchomić
- Udostępnianie materiałów odpowiednim grupom studentów
- Zadanie pytania wykładowcy na czacie podczas rozwiązywania sprawdzianu
- Wykorzystanie języka Markdown

The screenshot shows the VS Code interface with a Markdown file named 'test3.md' open. The code editor displays the following content:

```
1  ---  
2  title: "Hi there"  
3  output: pdf_document  
4  ---  
5  
# An exhibit of Markdown  
6  
H3 is cool.  
7  
This note demonstrates some of what [Markdown][1] is  
capable of doing.  
8  
$$\int_{-\infty}^{\infty} e^{-x^2} = \sqrt{\pi}$$  
9  
*Note: Feel free to play with this page. Unlike  
regular notes, this doesn't automatically save itself.*  
10  
## Basic formatting $x+12$  
11  
12 Paragraphs can be written like so. A paragraph is the basic  
block of Markdown. A paragraph is what text will  
turn into when there is no reason it should become  
anything else.  
13  
14 Paragraphs must be separated by a blank line. Basic  
formatting of italics and bold is supported.  
This can be nested like so.  
15  
## Lists  
16  
17  
### Ordered list
```

The right side of the interface shows the 'MPE Preview' tab, which displays the rendered content:

TITLE **OUTPUT**

Hi there pdf document

An exhibit of Markdown

H³ is cool.

This note demonstrates some of what [Markdown](#) is capable of doing.

$$\int_{-\infty}^{\infty} e^{-x^2} = \sqrt{\pi}$$

Note: Feel free to play with this page. Unlike regular notes, this doesn't automatically save itself.

Basic formatting $x + 12$

Paragraphs can be written like so. A paragraph is the basic block of Markdown. A paragraph is what text will turn into when there is no reason it should become anything else.

Paragraphs must be separated by a blank line. Basic formatting of **italics** and **bold** is supported. This **can be nested** like so.

Paragraphs must be separated by a blank line. Basic formatting of **italics** and **bold** is supported. This **can be nested** like so.

Line 1, Col 4 Spaces: 2 UTF-8 LF Markdown



9. Specyfikacja wymagań - User Stories (przykłady)

Jako wykładowca:

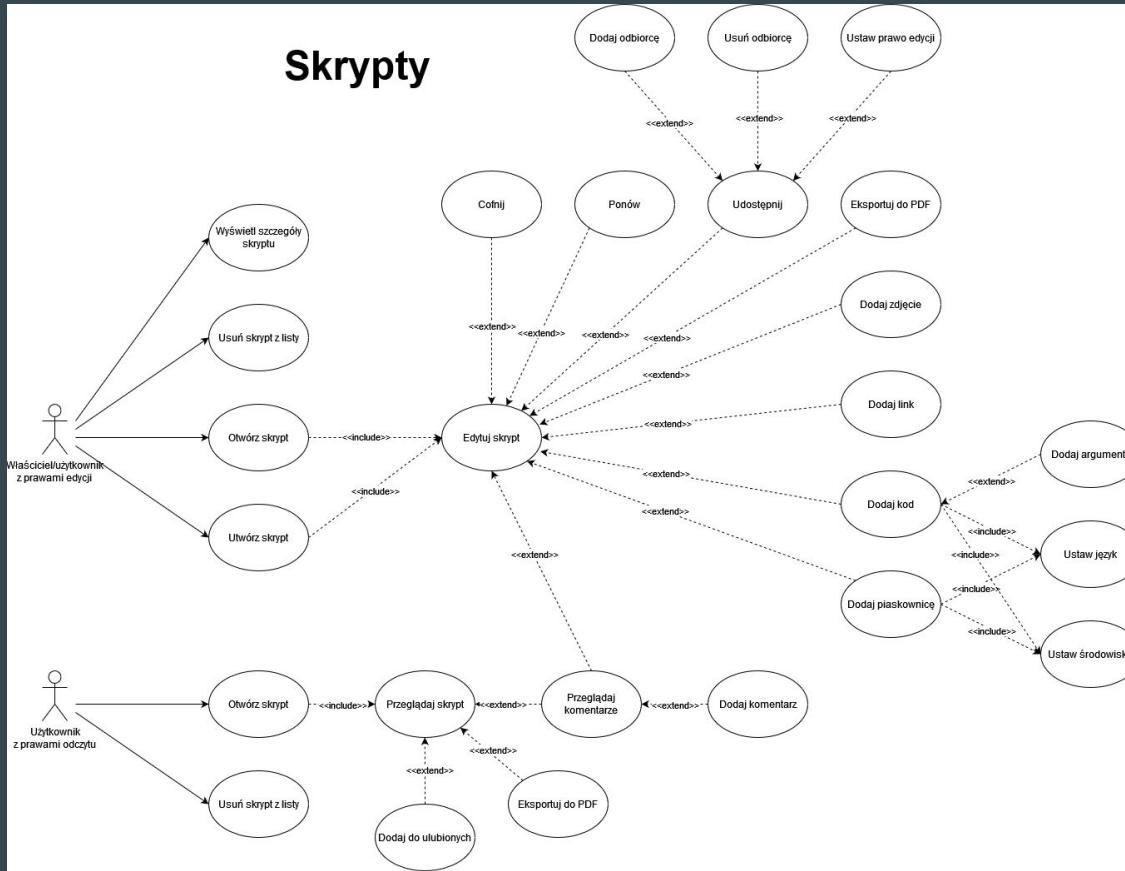
- chcę móc tworzyć konspekty w formacie Markdown, aby dostarczyć klarowne i estetyczne materiały edukacyjne.
- chcę móc edytować istniejący konspekt, aby zaktualizować materiały w dowolnym momencie
- chcę móc tworzyć quizy i sprawdziany do konspektu, aby oceniać postępy studentów i dostarczać im dodatkowe ćwiczenia
- chcę móc przypisywać zadania do grupy zajęciowej, aby umożliwić studentom praktyczne zastosowanie zdobytej wiedzy

Jako student:

- chcę móc przeglądać konspekty, aby skutecznie się uczyć
- chcę móc uczestniczyć w quizach i sprawdzianach, aby oceniać swoje umiejętności
- chcę otrzymywać informacje zwrotne od wykładowcy dotyczące rozwiązań zadań i quizów, aby lepiej zrozumieć swoje postępy

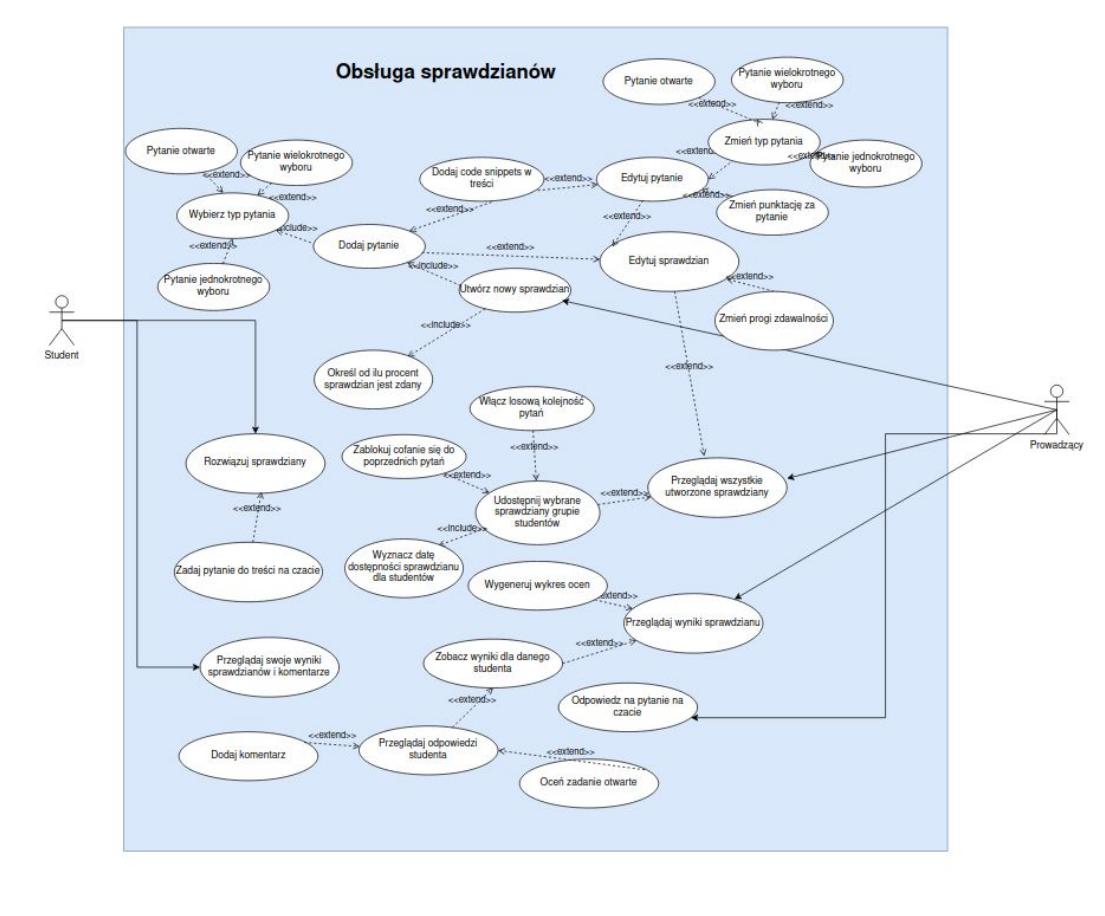
10. Przypadki użycia

- Skrypty



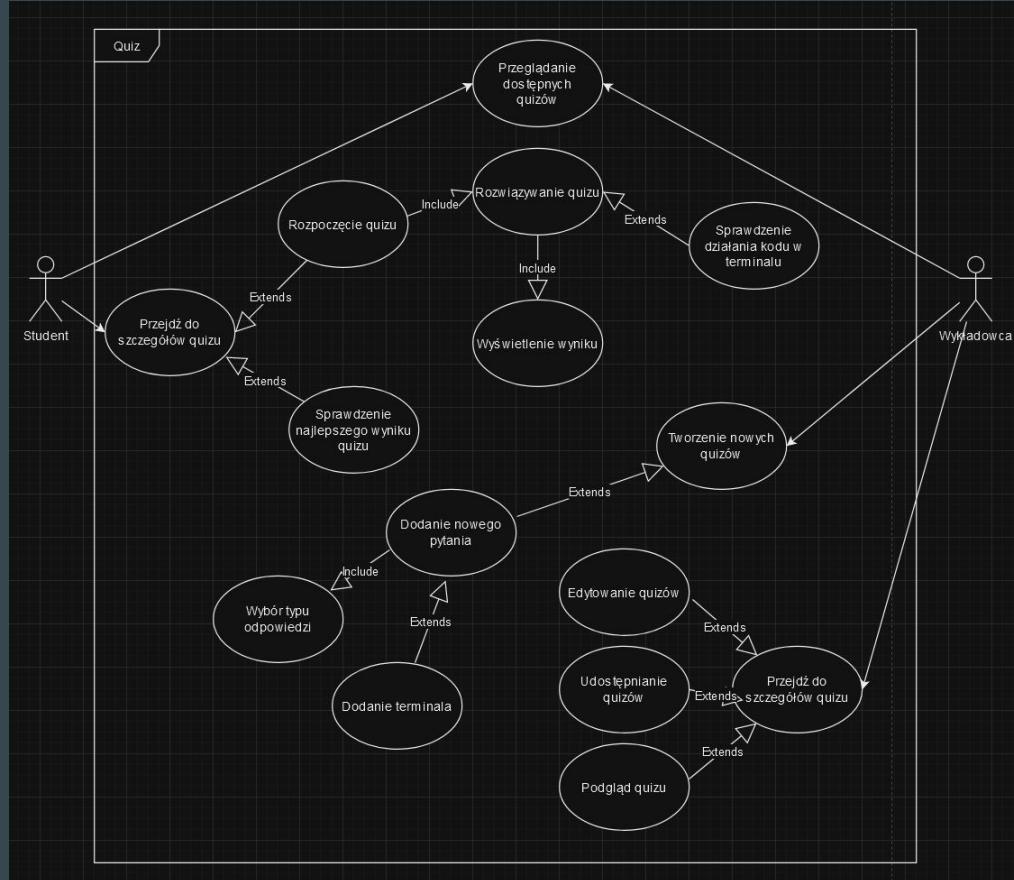
10. Przypadki użycia

- Sprawdziany



10. Przypadki użycia

- Quizy





11. Wireframe'y i wireflow - skrypty

The wireframe depicts a web browser window titled "Your scripts". The URL bar shows "https://unippets.com/script". The main content area is titled "Your scripts" and includes a navigation bar with "Dashboard", "Courses", "Scripts" (which is highlighted in blue), "Tests", and "Quizzes". There is also a "Log out" link. Below the navigation, there are three tabs: "Recent" (selected), "Starred", and "Authored". A search bar with the placeholder "search for scripts" is present. The main area displays a grid of six script cards:

- New script: Create empty template
- Script1: Last opened on Tue
- Script2: Shared on Mon
- Script3: Created last week
- Script4: Last opened on 22/11/23
- Script5: New comments: 2
- Script6: Last opened on 09/11/23

A yellow circle with the number "2" is overlaid on the Script5 card, indicating new comments.

[link do pełnego schematu](#)





11. Wireframe'y i wireflow - skrypty - tryb odczytu

Builder pattern in Java
<https://unippets.com/script/view/abcdefkaoskdsds243>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

Builder implementation

```
public class BoxBuilder {  
    private float width;  
    private float height;  
  
    public BoxBuilder() {}  
  
    public void setWidth(float width) {  
        this.width = width;  
    }  
  
    public void setHeight(float height) {  
        this.height = height;  
    }  
  
    public Box build() {  
        return new Box(this.width, this.height);  
    }  
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

Builder pattern in Java
<https://unippets.com/script/view/abcdefksoskdsds243>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

Builder implementation

```
public class BoxBuilder {  
    private float width;  
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    public void setWidth(float width) {  
        this.width = width;  
    }  
  
    public void setHeight(float height) {  
        this.height = height;  
    }  
  
    public Box build() {  
        return new Box(this.width, this.height);  
    }  
}
```

Comments +

You X >

Enter comment...

Jack Kowal on 23/11/23
What's builder useful for tho?
I just use constructors everywhere.

Alice Smith on 21/11/23
There's a typo in the
description of builder.

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.



11. Wireframe'y i wireflow - skrypty - przejście do edycji

Builder pattern in Java
<https://unippets.com/script/view/abcdefksaskdsds243>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

Builder implementation

```
public class BoxBuilder {  
    private float width;  
    private float height;  
  
    public BoxBuilder() {}  
  
    public void setWidth(float width) {  
        this.width = width;  
    }  
  
    public void setHeight(float height) {  
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    }  
  
    public Box build() {  
        return new Box(this.width, this.height);  
    }  
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

Builder pattern in Java - Editing
<https://unippets.com/script/edit/abcdefksaskdsds243>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

markdown live preview

Builder implementation

```
## Builder Implementation  
java  
public class BoxBuilder {  
    private float width;  
    private float height;  
  
    public BoxBuilder() {}  
  
    public void setWidth(float width) {  
        this.width = width;  
    }  
  
    public void setHeight(float height) {  
        this.height = height;  
    }  
  
    public Box build() {  
        return new Box(this.width, this.height);  
    }  
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.



11. Wireframe'y i wireflow - skrypty - tryb edycji

Builder pattern in Java - Editing
<https://unipppets.com/script/edit/abcde1f2g3h4i5j6k7l8m9n0o>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

markdown

```
## Builder Implementation

```java
public class BoxBuilder {
 private float width;
 private float height;

 public BoxBuilder() {}

 public void setWidth(float width) {
 this.width = width;
 }

 public void setHeight(float height) {
 this.height = height;
 }

 public Box build() {
 return new Box(this.width, this.height);
 }
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.
```

live preview

Builder implementation

```
public class BoxBuilder {
    private float width;
    private float height;

    public BoxBuilder() {}

    public void setWidth(float width) {
        this.width = width;
    }

    public void setHeight(float height) {
        this.height = height;
    }

    public Box build() {
        return new Box(this.width, this.height);
    }
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

undo redo

Builder pattern in Java - Editing
<https://unipppets.com/script/edit/abcde1f2g3h4i5j6k7l8m9n0o>

script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

markdown

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## Builder implementation

```java
public class BoxBuilder {
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 return new Box(this.width, this.height);
 }
}
```

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.
```

live preview

Add an image

Enter image URL or, Drag and drop the image

Caption Enter caption

Cancel Save

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.



11. Wireframe'y i wireflow - skrypty - tryb edycji

Builder pattern in Java - Editing
<https://unipetts.com/script/edit/abcdefksoskdsds243>

script title
Builder pattern in Java

markdown live preview

Add a code sample

Language Python3 (detected) Customize run options

```
## Builder implementation
java
public class BoxBuilder {
    private float width;
    private float height;

    public BoxBuilder() {
        this.width = 0;
        this.height = 0;
    }

    public void setWidth(float width) {
        this.width = width;
    }

    public void setHeight(float height) {
        this.height = height;
    }

    public Box build() {
        return new Box(this.width, this.height);
    }
}

if __name__ == '__main__':
    print('Hello Unipetts!')
```

Cancel Save

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

Back Forward Image Refresh PDF

Builder pattern in Java - Editing
<https://unipetts.com/script/edit/abcdefksoskdsds243>

script title
Builder pattern in Java

markdown live preview

Add a code sample (run options)

Run with Python 3.12 (latest) Run args

Advanced options

On error show stacktrace report all exceptions

Cancel Save

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

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Back Forward Image Refresh PDF



11. Wireframe'y i wireflow - skrypty - tryb edycji

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Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

markdown live preview

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## Builder implementation

```java
public class BoxBuilder {
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 private float height;

 public BoxBuilder() {
 this.width = 0;
 this.height = 0;
 }

 public void setWidth(float width) {
 this.width = width;
 }

 public void setHeight(float height) {
 this.height = height;
 }

 public Box build() {
 return new Box(this.width, this.height);
 }
}
```

Share Builder patter in Java
```

search for users and courses Add

John Smith ...
Introduction to Java ...

Cancel Share

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

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Back Forward Refresh Print PDF

Builder pattern in Java - Editing
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script title
Builder pattern in Java

Dashboard Courses Scripts Tests Quizes Log out

markdown live preview

```
## Builder implementation

```java
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 private float width;
 private float height;

 public BoxBuilder() {
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 }
}
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Share Builder patter in Java
```

search for users and courses Add

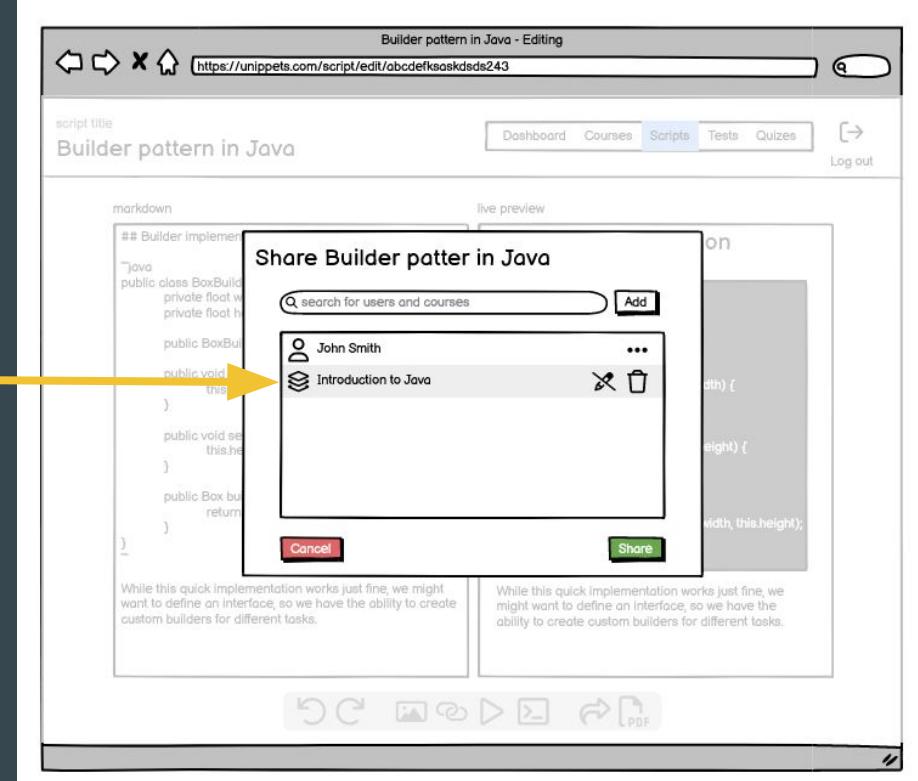
John Smith ...
Introduction to Java ...

Cancel Share

While this quick implementation works just fine, we might want to define an interface, so we have the ability to create custom builders for different tasks.

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Back Forward Refresh Print PDF





11. Wireframe'y i wireflow - sprawdziany

- wykładowca

The screenshot shows the 'Create new test' page on Unipet. The title is 'Lambda expressions and streams in java'. The question is 'Question 1'.

Code Snippet:

```
1## Correct this expression using streams
2
3``java
4    animals = animals.entrySet().stream()
5      .filter(entry -> entry.getValue().getEnergy() >
0)
6      .collect(Collectors.toList());
7``
```

Diagram:

Diagram illustrating a Java code snippet. It shows a main block with code and two smaller blocks below it. The bottom-left block contains 'System.out.println("Hello World");'. The bottom-right block contains 'animals = animals.entrySet().stream()' followed by a red arrow pointing to the next line.

Answer Type: Multiple choice Single choice Open question

Points:

Generate executable code snippet:

Select programming language:

Type in code:

Select line in which to insert the executable code:

Question 2

The screenshot shows the 'Create new test' page on Unipet. The title is 'Lambda expressions and streams in java'. The question is 'Question 1'.

Corrected Code Snippet:

```
## Correct this expression using streams
``java
animals = animals.entrySet().stream()
.filter(entry -> entry.getValue().getEnergy() >
0)
.collect(Collectors.toList());
```

Diagram:

Diagram illustrating a Java code snippet. It shows a main block with code and two smaller blocks below it. The bottom-left block contains 'System.out.println("Hello World");'. The bottom-right block contains 'animals = animals.entrySet().stream()' followed by a red arrow pointing to the next line.

Answer Type: Multiple choice Single choice Open question

Points:

Generate executable code snippet:

answer preview:

Diagram illustrating a Java code snippet. It shows a main block with code and two smaller blocks below it. The bottom-left block contains 'System.out.println("Hello World");'. The bottom-right block contains 'animals = animals.entrySet().stream()' followed by a red arrow pointing to the next line.

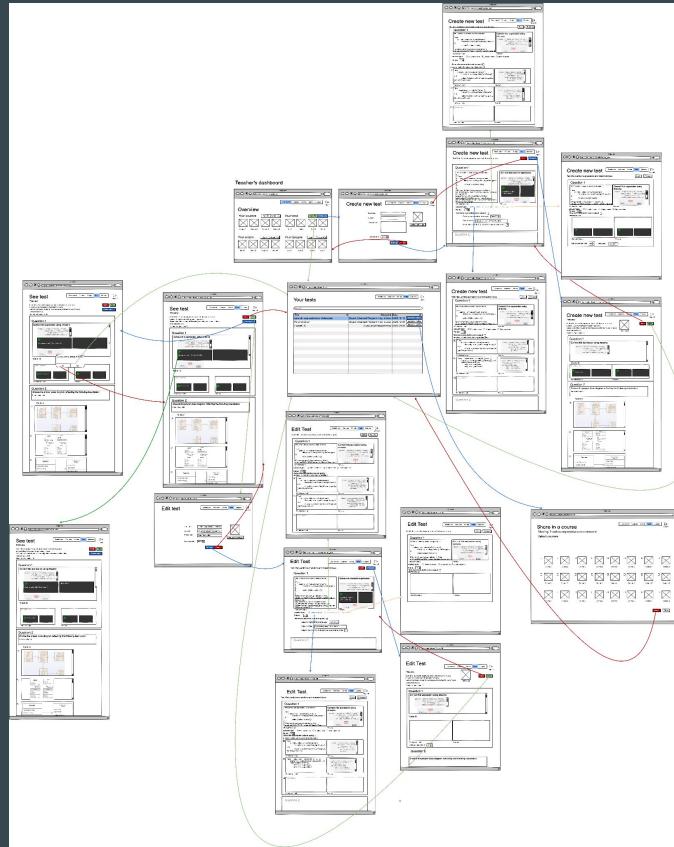
Markdown input

Preview

Add executable field: **Language:**

11. Wireframe'y i wireflow - sprawdziany

- wykładowca



<https://balsamiq.com/slw4jqs/pll2s94/rFB82>

11. Wireframe'y i wireflow - sprawdziany

- student

The screenshot shows a student's view of a test interface. At the top, it says "Course: Objected Oriented Programming". Below that is a "Solve test" button and a timer showing "Time left: 01:03:44". The test title is "Lambda expressions and streams in Java".
Question 1: A code snippet is shown:

```
animals = animals.entrySet().stream()
    .filter(entry -> entry.getValue().getEnergy() > 0)
    .collect(Collectors.toList());
```

Below the code is a button to "Submit".
Feedback for the question:

Points: 10
The main problem with this expression is that it is collected to List instead of Map ("java.util.List<Map> animals = ...").
The correction should be:

```
animals = animals.entrySet()
    .stream()
    .filter(entry -> entry.getValue().getEnergy() > 0)
    .collect(Collectors.toMap());
```


Question 2: This section is completely blank.
A "Chat" button is located on the right side of the interface.

The screenshot shows a student's view of a test interface. At the top, it says "Course: Objected Oriented Programming". Below that is a "Solve test" button and a timer showing "Time left: 01:03:44".
Question 11: This section is completely blank.
Question 12: A question description is shown:

Choose the proper class diagram reflecting the following description:
Some description

Below the description are three class diagrams labeled A, B, and C:

- Diagram A:** Shows a Teacher class with attributes like name, age, and address, and methods like getTeacherInfo().
- Diagram B:** Shows a Teacher class with attributes like name, age, and address, and methods like getTeacherInfo(), getAge(), and setAge().
- Diagram C:** Shows a Teacher class with attributes like name, age, and address, and methods like getTeacherInfo(), getAge(), setAge(), and isAdult().

A "Chat" button is located on the right side of the interface.



11. Wireframe'y i wireflow - sprawdziany

- student

Unippets https://unippets.com/tests/create_new

Course: Objected Oriented Programming

Test solved - results

Test title: Lambda expressions and streams in java
Subject: Object Oriented Programming in Java
Description: Check students' knowledge about streams and lambdas
Pass percent: 50%

Number of questions: 12

Results:

Total points: 45/68
Total percent: 65%
Points (choice questions): 35/60
Percent (choice questions): 70%
Points (open questions): 10/18
Percent (open questions): 60%

Points per question:

| | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2/3 | 5/6 | 8/8 | 3/3 | 2/1 | 2/3 | 4/5 | 1/8 | 2/6 | 1/3 | 3/4 | 2/3 |
| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 |

See your answers to open questions

Question 3
Correct this expression using streams

```
animals = animals.entrySet().stream()
    .filter(entry -> entry.getValue()
        () > entry.getKey())
    .collect(Collectors.toList());
```

System.out.println("Hello World");

Points: 8/8

The main problem with this expression is that it is collected to List instead of Map (.collect(Collectors.toList());)
The correction should be:

```
animals = animals.entrySet().stream()
```

Teacher's comment _____

None

Question 5
Correct this expression using streams

```
animals = animals.entrySet().stream()
    .filter(entry -> entry.getValue()
        () > entry.getKey())
    .collect(Collectors.toList());
```

System.out.println("Hello World");

Points: 2/10

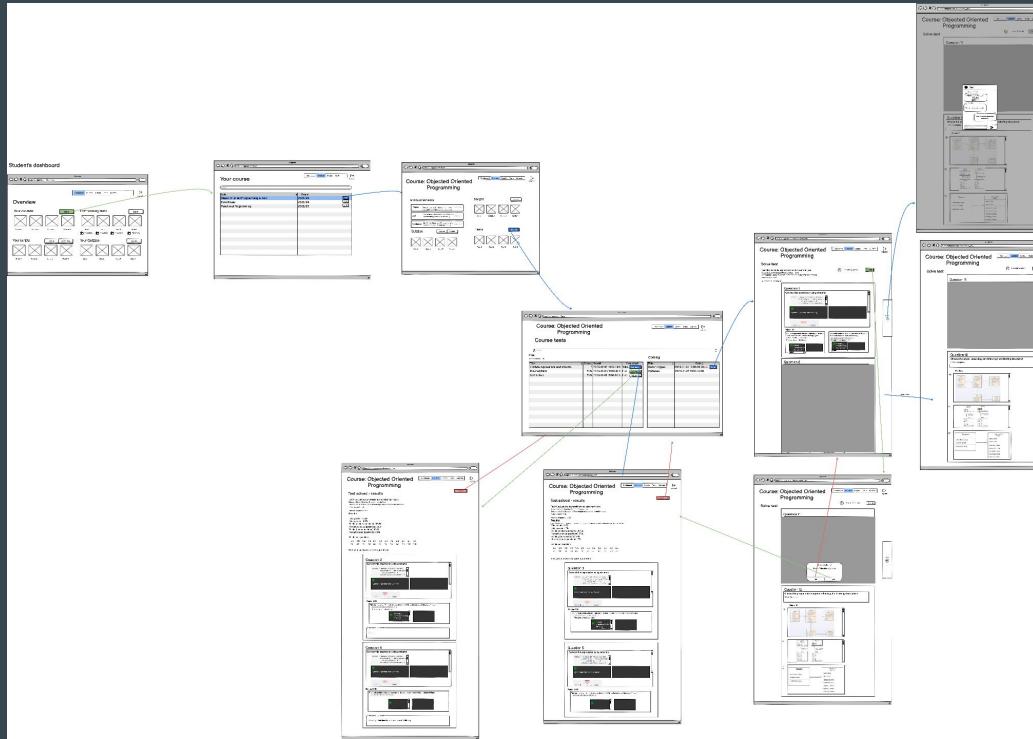
The main problem with this expression is that it is collected to List instead of Map (.collect(Collectors.toList());)

Teacher's comment _____

You're right, but there is no answer how to fix this bug

11. Wireframe'y i wireflow - sprawdziany

- student



<https://balsamiq.com/slw4jqs/p1l2s94/rFB82>



11. Wireframe'y i wireflow - quisy

- wykładowca

<https://balsamiq.cloud/slw4jq/s/pgoj3j9/r6C4E>

A wireframe of a web application interface titled "A Web Page". The URL in the address bar is <https://unippets.com/quizzes>. The main content area displays "Your quizzes (5)" with a search bar and a "Create new Quiz" button. A navigation bar at the top includes links for Dashboard, Courses, Scripts, Tests, and Quizzes (which is highlighted in blue), along with a Log out link. Below the navigation is a table listing five quizzes:

| Title | Language | Last Modified |
|--|--|---------------|
| Java Basics Quiz: Test Your Fundamentals | Java | 2023-12-04 |
| Exception Handling in Java | Java | 2023-12-11 |
| Haskell Pattern Matching Puzzles | Haskell | 2023-11-24 |
| Haskell List Comprehensions | Open Share Haskell | 2023-11-22 |
| Haskell Functors and Applicatives | Haskell | 2023-12-01 |



11. Wireframe'y i wireflow - quizy

- wykładowca

A Web Page
<https://unippets/quizzes/create/quiz>

Create quiz

Title: Haskell List Comprehensions

Language: Haskell

Description:

Welcome to the "Haskell List Comprehension Mastery Quiz"! This quiz is designed to test your understanding and proficiency in utilizing list comprehensions in Haskell. List comprehensions are a powerful and concise way to create lists by specifying their elements through comprehensible and expressive syntax.

Instructions:

- Read each question carefully.
- Choose the correct answer or write Haskell code where required.
- Some questions may have multiple correct answers; choose the most appropriate one(s).

Number of questions: 1

Question 1

Markdown input — Preview —

1

answer type: Multiple choice Single choice Open question

Add executable code snippet:

Select programming language: Haskell

Text: Test your code here

Test your code here

Add question

A Web Page
<https://unippets/quizzes/create/quiz>

Create quiz

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Instructions:

- Read each question carefully.
- Choose the correct answer or write Haskell code where required.
- Some questions may have multiple correct answers; choose the most appropriate one(s).

Number of questions: 15

Question 1

Markdown input — Preview —

1

answer type: Multiple choice Single choice Open question

Add executable code snippet:

Select programming language: Haskell

Text: Test your code here

Test your code here

Add question



11. Wireframe'y i wireflow - quisy

- wykładowca

A Web Page
<https://unippets/quizzes/edit/quiz>

Edit quiz

Question 4

Markdown input

```
1 ## Consider the following Haskell code snippet that defines a higher-order function modifyList
2
3 modifyList :: (a -> b) -> (b -> Bool) -> a -> b
4 modifyList f xs = filter p (map f xs)
5
6 ## This function takes two functions f and p, and a list xs. It applies function f to each element of the list, filters the results using p, and returns a new list.
7 Now, choose the modifyList function using the concatMap function, achieving the same result.
```

Preview

answer type: Multiple choice Single choice Open question

1[~]
1[~] modifyList f p xs = concatMap (\x -> if p (f x) then [f x] else []) xs
2
3

1[~]
1[~] modifyList f p xs = map (\x -> f x) (filter p xs)
2
3

1[~]
1[~] modifyList f p xs = concatMap (\x -> [f x | p (f x)]) xs
2
3

1[~]
1[~] modifyList f p xs = concatMap (\x -> [f x | not (p x)]) xs
2
3

Add executable code snippet:

Question 5

Markdown input

Preview

A Web Page
<https://unippets/quizzes/edit/quiz>

Edit quiz

Question 2

Markdown input

```
1 ## Choose a list comprehension that generates a list of even numbers from 1 to 20
2
```

Preview

Choose a list comprehension that generates a list of even numbers from 1 to 20

answer type: Multiple choice Single choice Open question

1[~]
1[~] [x | x < [1..20], even x]
2
3

1[~]
1[~] [2 * x | x < [1..20]]
2
3

1[~]
1[~] [x | x < [1..20], odd x]
2
3

1[~]
1[~] [x | x < [1..20], mod x 2 == 1]
2
3

Add executable code snippet:

Question 3

Markdown input

Preview



11. Wireframe'y i wireflow - quizy

- student

[https://balsamiq.cloud/slw4jqs/
pgoj3j9/r2F0F](https://balsamiq.cloud/slw4jqs/pgoj3j9/r2F0F)

A Web Page

https://unippets.com/quizzes

Course: Functional Programming

Your quizzes (3)

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search

| Title | Language | Best score |
|-----------------------------------|----------|------------|
| Haskell Pattern Matching Puzzles | Haskell | 8/8 |
| Haskell List Comprehensions | Open | 12/15 |
| Haskell Functors and Applicatives | Haskell | |
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11. Wireframe'y i wireflow - quizy



- ## - student



11. Wireframe'y i wireflow - quízy

- student

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<https://unippets/quizzes/quiz>

Haskell List Comprehensions

Language: Haskell

Description:

Welcome to the "Haskell List Comprehension Mastery Quiz"! This quiz is designed to test your understanding and proficiency in utilizing list comprehensions in Haskell. List comprehensions are a powerful and concise way to create lists by specifying their elements through comprehensible and expressive syntax.

Question 2

Choose a list comprehension that generates a list of even numbers from 1 to 20

[x | x <- [1..20], even x]
 [2 * x | x <- [1..20]]
 [x | x <- [1..20], odd x]
 [x | x <- [1..20], mod x 2 == 1]

Submit

Prev Next

A Web Page
<https://unippets/quizzes/quiz>

Haskell List Comprehensions

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Submit

Question 3

Write a Haskell list comprehension that generates a list of squares of numbers from 1 to 10.

[x^2 | x <- [1..10]]

Final score

12/15

A Web Page
<https://unippets/quizzes/quiz>

Haskell List Comprehensions

Language: Haskell

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Number of questions: 15

Back to quizzes

Final score

12/15

Redo quiz



Dziękujemy za uwagę!