**Scenario 15 – Catch the mouse**

There is a mouse in Nina's room. The cat named Muri is released into the room with the intention of catching the mouse. Muri is unsuccessful in hunting. The mouse escapes several times to the cat. How many times has Muri almost caught the mouse?

1. First you have **to open** *Catch the mouse* **program**. In it you find a template with background – Nina's room.
2. Next you have **to add a new sprites** – a cat and a mouse.
3. The cat is moved by the player with the arrow keys. The player tries to catch the mouse. Now you have **to add the code that the cat is moved by the arrow keys** (up, down, left, right). Also you have to consider what happens if the cat is on edge.

*TIP: Help yourself with the blocks*

*   .*

1. The mouse runs around Nina's room. You have **to program the mouse to move randomly**.

The following note:

* The mouse moves by a random number of steps.
* The mouse turns by a random number of degrees.
* The mouse bounces if it is on the edge.

*TIP: Help yourself with the block .*

1. Every time the cat catches a mouse, it escapes. Now you have to program that **the mouse hides and appears in a random location in the room when it touches the cat**.

*TIP: Help yourself with the blocks from TASK 4 and with the blocks*

* and .*

1. We wonder how many times a player catches the mouse. You have **to add a counter** that **it will count the number of times the cat touches the mouse.**

The following note:

* You have to create a new variable named *Result* (you have to go to *Variables* and click on *New Variable button*).
* No mouse is caught at the beginning of the game, so the *Result* variable must be set to 0 (help yourself with block  ).
* Each time the cat catches (touches) the mouse the *Result* variable must be increased by 1 (*help yourself with the block* ).

1. The game ends after a certain amount of time (e. g. after 30 s). You have **to add a timer** to determine the end of the game.

The following note:

* You have to add the timer (you can find it in the *Sensing* tab).
* After a while (eg 30 s) the mouse and the cat hide (help yourself with the block  ).
* You have to reset the timer at the end of the game (help yourself with the block ).

1. Next you have to **add a new sprite** – a girl. She tells the score of the player how many times she or he has caught the mouse.

*TIP: Help yourself with the block .*

**[ADDITIONAL TASKS]**

You can add any elements to the game.

1. For example, you can upgrade the game by adding the girl who is afraid of mice and she jumps every time when she touches a mouse.

*TIP: Help yourself with the blocks  and .*

1. For example, you can upgrade the game by adding the sound of the cat which it plays when the cat caught the mouse.

*TIP: Help yourself with the blocks  and .*

WHEN YOU FINISH, **SAVE** THE PROGRAM!

Catch the mouse: <https://snap.berkeley.edu/project?user=tadeja&project=Catch%20the%20mouse>