



Tecnológico de Monterrey

Herramientas computacionales : El arte de la programación

Actividad 4 :

Tiro parabólico

Grupo 1 Equipo 8

Edgar Martínez Rodríguez	A00828352 (IBT)
Aylin Camacho Reyes	A01379272 (ITC)
Juan Diego Cruz-Gomar Falla	A00829724 (LIT)
Brando Cadenas Ortiz	A01552549(IQ)

Docente encargada: Gabriela Zamora Leal

Entregada en 30 de Junio de 2021

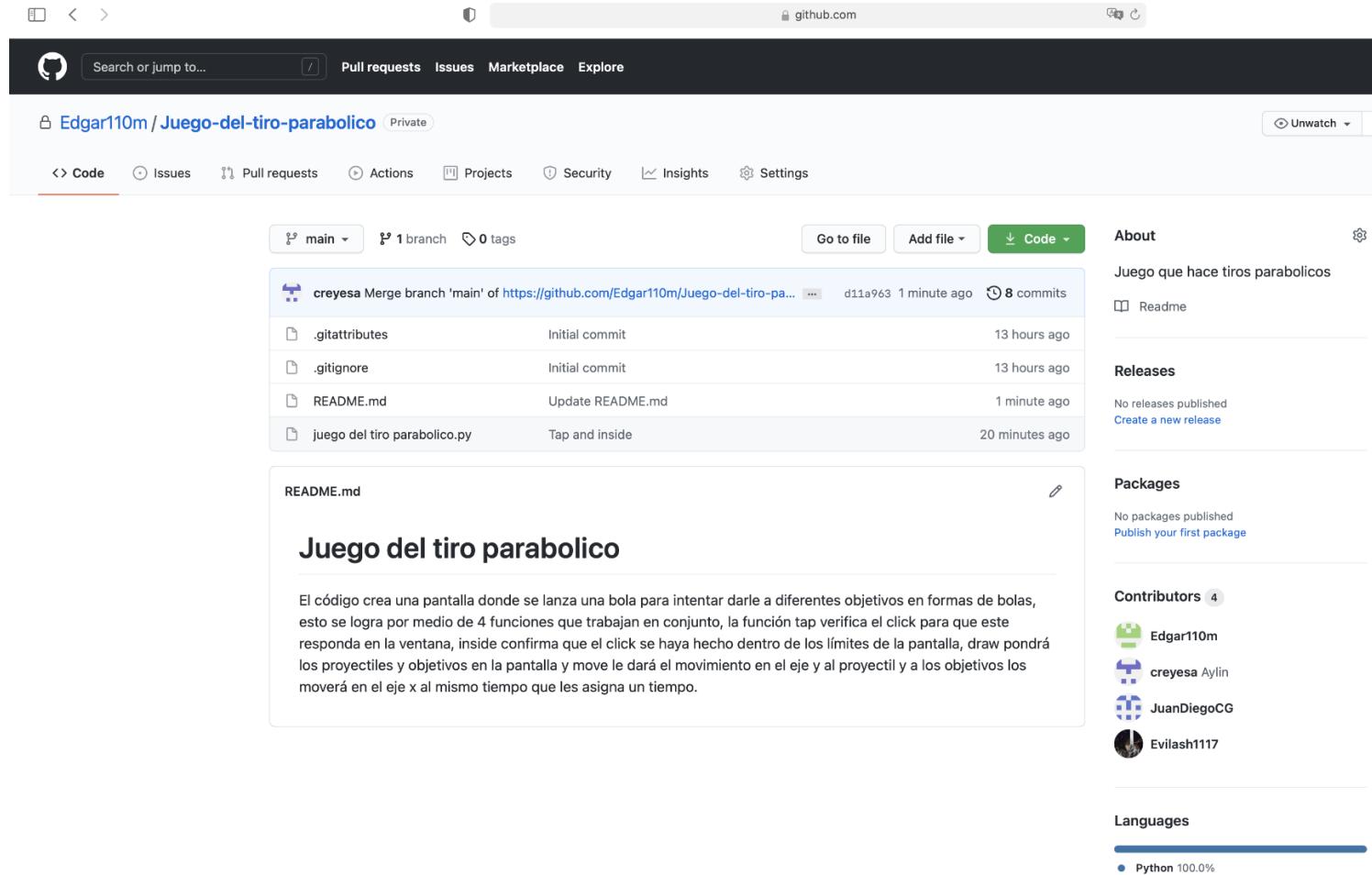
Tiro parabólico

Introducción

En el presente informe se te mostrará una serie de imágenes en donde son exhibidos las distintas acciones que tienen que llevarse a cabo para realizar un repositorio así como también modificar programas dentro del mismo ya que en este caso se le hicieron modificaciones al juego de tiro parabólico con la intención de que la velocidad del movimiento del proyectil y de los balones sea más rápida así como también se hicieron las modificaciones pertinentes al código para que el juego nunca termina, ya que los balones al salir de la ventana se reposicionan, todo lo antes mencionado fue elaborado compartiendo el repositorio con los integrantes del equipo usando Github siendo así que esta aplicación nos permite desde nuestro escritorio y en línea compartir comentarios y modificaciones del programa así como también clonar y actualizar el pertinente repositorio de manera efectiva.

Descripción del código

El código crea una pantalla donde se lanza una bola para intentar darle a diferentes objetivos en formas de bolas, esto se logra por medio de 4 funciones que trabajan en conjunto, la función tap verifica el click para que este responda en la ventana, inside confirma que el click se haya hecho dentro de los límites de la pantalla, draw pondrá los proyectiles y objetivos en la pantalla y move le dará el movimiento en el eje y al proyectil y a los objetivos los moverá en el eje x al mismo tiempo que les asigna un tiempo.

Captura Readme Git hub y funcionamiento del juego

The screenshot shows a GitHub repository page for `Edgar110m/Juego-del-tiro-parabolico`. The repository is private and contains 8 commits from `creyes`, 1 branch, and 0 tags. The `README.md` file is displayed, describing a game that fires parabolic shots. The repository has 4 contributors: `Edgar110m`, `creyes Aylin`, `JuanDiegoCG`, and `Evilash1117`. The code is written in Python.

Repository Details:

- Owner: Edgar110m
- Name: Juego-del-tiro-parabolico
- Status: Private
- Last commit: d11a963 1 minute ago
- Commits: 8
- Branches: 1
- Tags: 0

Code View:

- main branch
- 1 branch
- 0 tags

Commit History:

File	Message	Time
.gitattributes	Initial commit	13 hours ago
.gitignore	Initial commit	13 hours ago
README.md	Update README.md	1 minute ago
juego del tiro parabolico.py	Tap and inside	20 minutes ago

README.md Content:

Juego del tiro parabolico

El código crea una pantalla donde se lanza una bola para intentar darle a diferentes objetivos en formas de bolas, esto se logra por medio de 4 funciones que trabajan en conjunto, la función tap verifica el click para que este responda en la ventana, inside confirma que el click se haya hecho dentro de los límites de la pantalla, draw pondrá los proyectiles y objetivos en la pantalla y move le dará el movimiento en el eje y al proyectil y a los objetivos los moverá en el eje x al mismo tiempo que les asigna un tiempo.

About:
Juego que hace tiros parabolicos

Readme:

Releases:
No releases published
[Create a new release](#)

Packages:
No packages published
[Publish your first package](#)

Contributors: 4

- Edgar110m
- creyes Aylin
- JuanDiegoCG
- Evilash1117

Languages:

Python 100.0%

The screenshot shows the Thonny IDE interface. The top bar displays the title "Thonny - C:\Users\52812\Documents\GitHub\Juego" and the status message "Usted está viendo la pantalla de Aylin Camacho". The menu bar includes Archivo, Editar, Ver, Ejecutar, Device, and Herramientas. The left sidebar lists open files: Packman.py, PACKMAN.py, and PACKMAN2.py. The main code editor contains the following Python script:

```
24 if not inside(ball):
25     ball.x = -199
26     ball.y = -199
27     speed.x = (x + 20)
28     speed.y = (y + 20)
29
30
31 def inside(xy):
32     "Return True if xy is inside the screen boundaries"
33     return -200 < xy.x <
34
35
36 def draw():
37     "Draw ball and targets."
38     clear()
39
40     for target in targets:
41         goto(target.x, target.y)
42         dot(20, 'blue')
43
44     if inside(ball):
45         goto(ball.x, ball.y)
46         dot(6, 'red')
47
48     update()
49
50
51 def move():
52     "Move ball and targets."
53     if randrange(40) == 0:
54
```

The right side of the interface shows the "Python Turtle Graphics" window displaying several blue dots representing targets. The bottom-left corner shows the "Shell" window with the command "move" run, and the bottom status bar shows system icons and the time "12:31 a.m.".

Thonny - C:\Users\52812\Documents\GitHub\Juego

Usted está viendo la pantalla de Aylin Camacho Ver Opciones

Archivo Editar Ver Ejecutar Device Herramientas

Packman.py x PACKMAN.py x PACKMAN2.py ju

```
24 if not inside(ball):
25     ball.x = -199
26     ball.y = -199
27     speed.x = (x + 20)
28     speed.y = (y + 20)
29
30
31 def inside(xy):
32     "Return True if xy wi
33     return -200 < xy.x <
34
35
36 def draw():
37     "Draw ball and targets."
38     clear()
39
40     for target in targets:
41         goto(target.x, target.y)
42         dot(20, 'blue')
43
44     if inside(ball):
45         goto(ball.x, ball.y)
46         dot(6, 'red')
47
48     update()
49
50
51 def move():
52     "Move ball and targets."
53     if randrange(40) == 0:
```

Python Turtle Graphics

The screenshot shows a Python Turtle Graphics window titled "Python Turtle Graphics". Inside the window, a blue ball is moving towards several smaller blue dots representing targets. The ball is currently positioned near the bottom center of the screen. The code in the editor window corresponds to the logic for this game, including functions for drawing the ball and targets, and for moving the ball based on random events.

Shell x

```
"68416176move"
("after" script)%Run 'juego del tiro parabolico.py'
```

Re-Iniciar Audio Iniciar Video Seguridad Participantes Chatear Compartir pantalla Grabar Sección de Grupos Reacciones

Thonny - C:\Users\52812\Documents\GitHub\Juego

Usted está viendo la pantalla de Aylin Camacho Ver Opciones

Archivo Editar Ver Ejecutar Device Herramientas

Packman.py x PACKMAN.py x PACKMAN2.py ju

```
24 if not inside(ball):
25     ball.x = -199
26     ball.y = -199
27     speed.x = (x + 20)
28     speed.y = (y + 20)
29
30
31 def inside(xy):
32     "Return True if xy wi
33     return -200 < xy.x <
34
35
36 def draw():
37     "Draw ball and targets."
38     clear()
39
40     for target in targets:
41         goto(target.x, target.y)
42         dot(20, 'blue')
43
44     if inside(ball):
45         goto(ball.x, ball.y)
46         dot(6, 'red')
47
48     update()
49
50
51 def move():
52     "Move ball and targets."
53     if randrange(40) == 0:
54         ball.x = -199
55         ball.y = -199
56         speed.x = (x + 20)
57         speed.y = (y + 20)
```

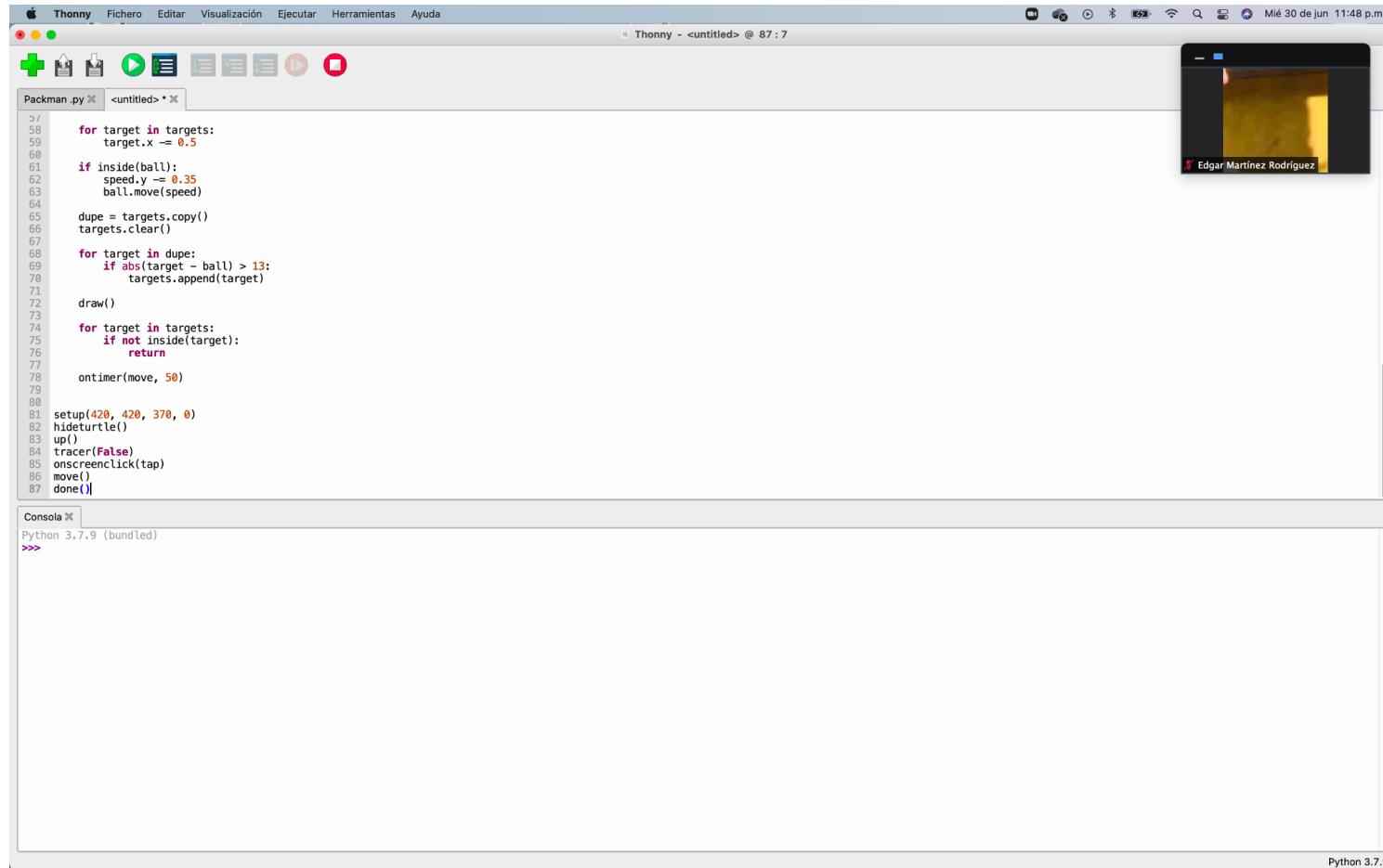
Python Turtle Graphics

The screenshot shows a Python Turtle Graphics window titled "Python Turtle Graphics". Inside the window, a blue ball is moving towards a cluster of four blue dots representing targets. The ball's path is a curved arc. The code in the editor corresponds to the logic for this movement.

Shell

```
"68416176move"
("after" script)%Run 'juego del tiro parabolico.py'
```

Re-Iniciar Audio Iniciar Video Seguridad Participantes Chatear Compartir pantalla Grabar Sección de Grupos Reacciones Fin

Edgar Martínez Rodríguez

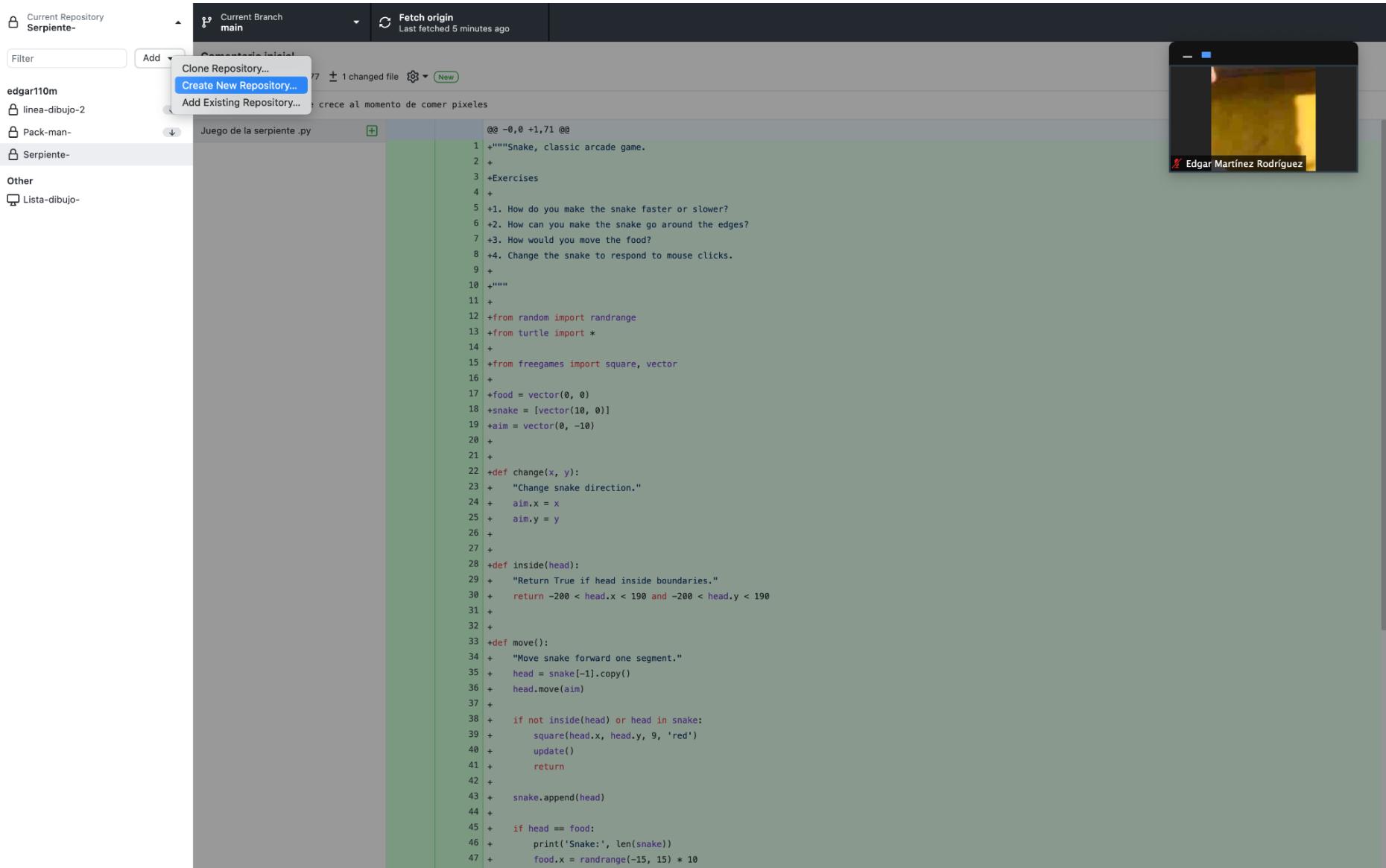
The screenshot shows the Thonny IDE interface. The top menu bar includes: Fichero, Editar, Visualización, Ejecutar, Herramientas, Ayuda. The status bar at the top right shows: Mié 30 de jun 11:48 p.m.

The main window has two tabs: "Packman.py" and "<untitled>". The "Packman.py" tab contains the following Python code:

```
57
58     for target in targets:
59         target.x -= 0.5
60
61     if inside(ball):
62         speed.y -= 0.35
63         ball.move(speed)
64
65     dupe = targets.copy()
66     targets.clear()
67
68     for target in dupe:
69         if abs(target - ball) > 13:
70             targets.append(target)
71
72     draw()
73
74     for target in targets:
75         if not inside(target):
76             return
77
78     ontimer(move, 50)
79
80
81     setup(420, 420, 370, 0)
82     hideturtle()
83     tracer(False)
84     onscreenclick(tap)
85     move()
86     done()
87 
```

The right side of the interface shows a preview window displaying a yellow background with a small black rectangle in the center. Below the preview is the text "Edgar Martínez Rodríguez".

The bottom left corner shows the "Consola" tab with the message: "Python 3.7.9 (bundled)" and "=>>>".

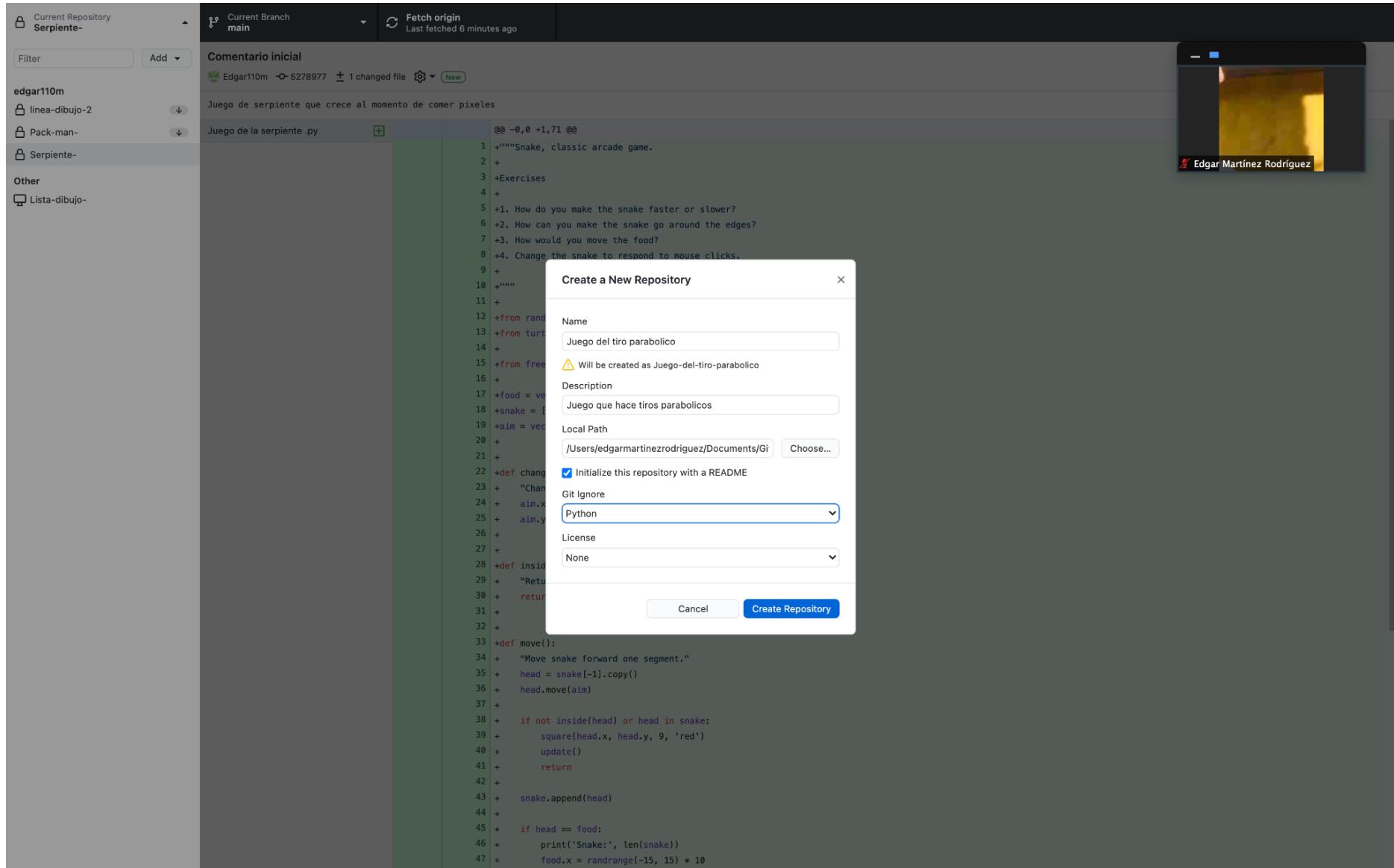


The screenshot shows the GitHub desktop application interface. At the top, it displays the current repository as "Serpiente-", the branch as "main", and the status "Fetch origin Last fetched 5 minutes ago". A context menu is open over the repository list, with the option "Create New Repository..." highlighted.

The main area shows a list of repositories on the left and the content of the "Juego de la serpiente .py" file on the right. The file contains Python code for a Snake game, with line numbers from 1 to 47. The code includes imports for random and turtle modules, defines functions for changing direction, checking boundaries, and moving the snake, and handles food detection.

```
@@ -0,0 +1,71 @@
+"""Snake, classic arcade game.
+
+Exercises
+
+1. How do you make the snake faster or slower?
+2. How can you make the snake go around the edges?
+3. How would you move the food?
+4. Change the snake to respond to mouse clicks.
+
+"""
+
+from random import randrange
+from turtle import *
+
+from freegames import square, vector
+
+food = vector(0, 0)
+snake = [vector(10, 0)]
+aim = vector(0, -10)
+
+def change(x, y):
+    "Change snake direction."
+    aim.x = x
+    aim.y = y
+
+def inside(head):
+    "Return True if head inside boundaries."
+    return -200 < head.x < 190 and -200 < head.y < 190
+
+def move():
+    "Move snake forward one segment."
+    head = snake[-1].copy()
+    head.move(aim)
+
+    if not inside(head) or head in snake:
+        square(head.x, head.y, 9, 'red')
+        update()
+        return
+
+    snake.append(head)
+
+    if head == food:
+        print('Snake:', len(snake))
+        food.x = randrange(-15, 15) * 10
```

In the bottom right corner of the GitHub desktop window, there is a small profile picture and the name "Edgar Martínez Rodríguez".



The screenshot shows a GitHub repository interface for the user 'edgar110m' named 'Serpiente-'. The current branch is 'main'. A pull request titled 'Comentario inicial' has been merged by 'Edgar110m' (5278977) with 1 changed file. The commit message is 'Juego de serpiente que crece al momento de comer pixeles'. The code in the file 'Juego de la serpiente .py' is a Python script for a snake game. A modal window titled 'Create a New Repository' is open, prompting the user to enter details for a new repository named 'Juego del tiro parabolico'. The modal includes fields for Name, Description, Local Path, Git Ignore (set to 'Python'), and License (set to 'None'). The 'Initialize this repository with a README' checkbox is checked.

```
1 +"""Snake, classic arcade game.
2 +
3 +Exercises
4 +
5 +1. How do you make the snake faster or slower?
6 +2. How can you make the snake go around the edges?
7 +3. How would you move the food?
8 +4. Change the snake to respond to mouse clicks.
9 +
10 +"""
11 +
12 +from random import randint
13 +from turtle import *
14 +
15 +from freegames import vector
16 +
17 +food = vector(0, 0)
18 +snake = [vector(10, 0)]
19 +aim = vector(0, 0)
20 +
21 +def change(x, y):
22 +    "Change snake direction"
23 +    aim.x = x
24 +    aim.y = y
25 +
26 +def inside(head):
27 +    "Return True if head inside boundaries"
28 +    return -200 <= head.x <= 200 and -200 <= head.y <= 200
29 +
30 +def move():
31 +    "Move snake forward one segment."
32 +
33 +    head = snake[-1].copy()
34 +    head.move(aim)
35 +
36 +    if not inside(head) or head in snake:
37 +        square(head.x, head.y, 9, 'red')
38 +        update()
39 +        return
40 +
41 +    snake.append(head)
42 +
43 +    if head == food:
44 +        print('Snake:', len(snake))
45 +        food.x = randint(-15, 15) * 10
46 +        food.y = randint(-15, 15) * 10
47 +
```

Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Publish repository

Publish this repository to GitHub

Changes 1 History juego del tiro parabolico.py

1 changed file: juego del tiro parabolico.py

```
@@ -0,0 +1,87 @@
+"""Cannon, hitting targets with projectiles.

+
+Exercises
+
+1. Keep score by counting target hits.
+2. Vary the effect of gravity.
+3. Apply gravity to the targets.
+4. Change the speed of the ball.

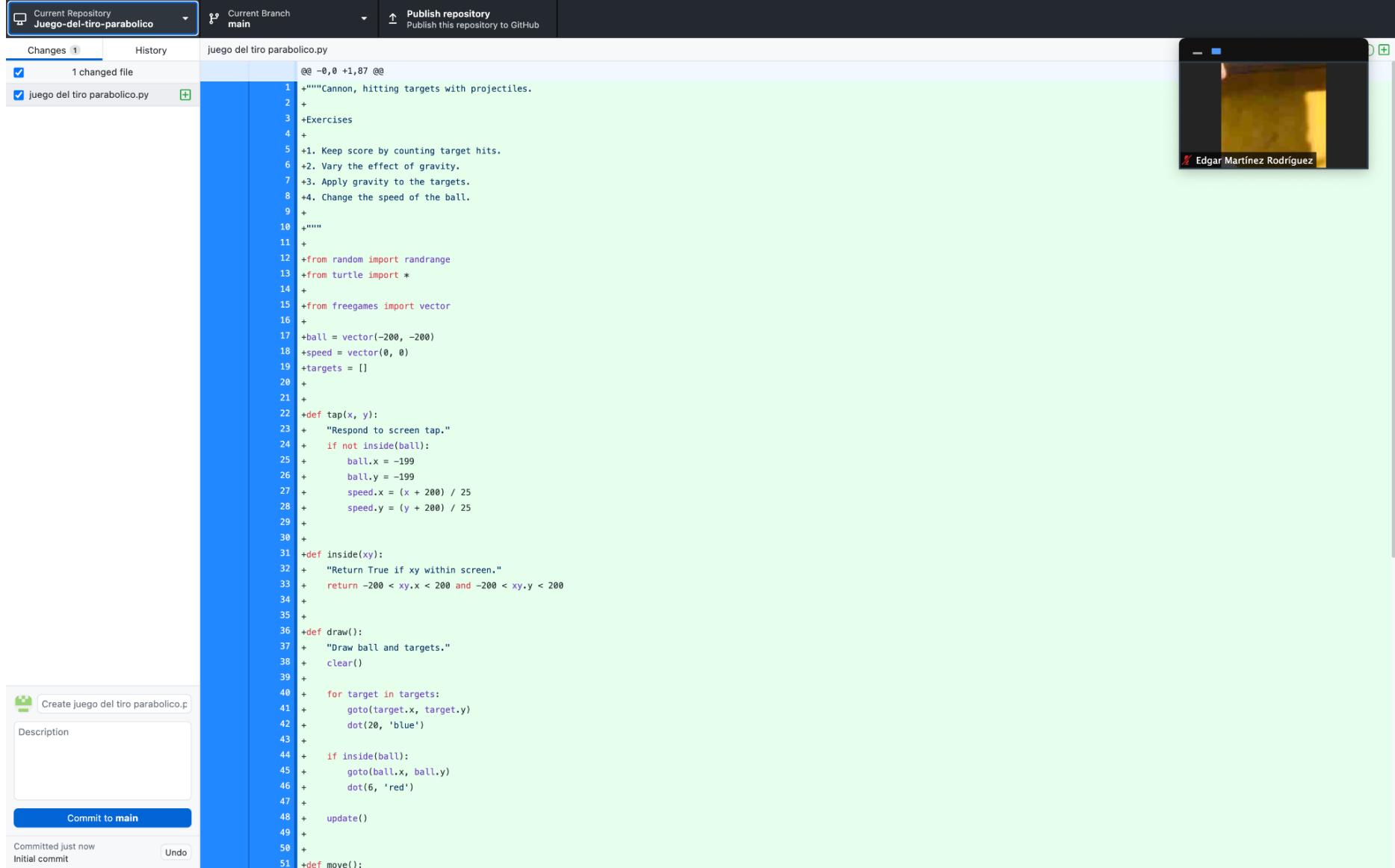
+
+"""
+
+from random import randrange
+from turtle import *
+
+from freegames import vector
+
+ball = vector(-200, -200)
+speed = vector(0, 0)
+targets = []
+
+
+def tap(x, y):
+    "Respond to screen tap."
+    if not inside(ball):
+        ball.x = -199
+        ball.y = -199
+        speed.x = (x + 200) / 25
+        speed.y = (y + 200) / 25
+
+
+def inside(xy):
+    "Return True if xy within screen."
+    return -200 < xy.x < 200 and -200 < xy.y < 200
+
+
+def draw():
+    "Draw ball and targets."
+    clear()
+
+    for target in targets:
+        goto(target.x, target.y)
+        dot(20, 'blue')
+
+    if inside(ball):
+        goto(ball.x, ball.y)
+        dot(6, 'red')
+
+    update()
+
+
+def move():
+    "Update ball position."
```

Create juego del tiro parabolico.p

Description

Commit to main

Committed just now Initial commit Undo



Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Publish repository

Changes 1 History juego del tiro parabolico.py

1 changed file: juego del tiro parabolico.py

```

@@ -0,0 +1,87 @@
+"""Cannon, hitting targets with projectiles.

+
+Exercises
+
+1. Keep score by counting target hits.
+2. Vary the effect of gravity.
+3. Apply gravity to the targets.
+4. Change the speed of the ball.

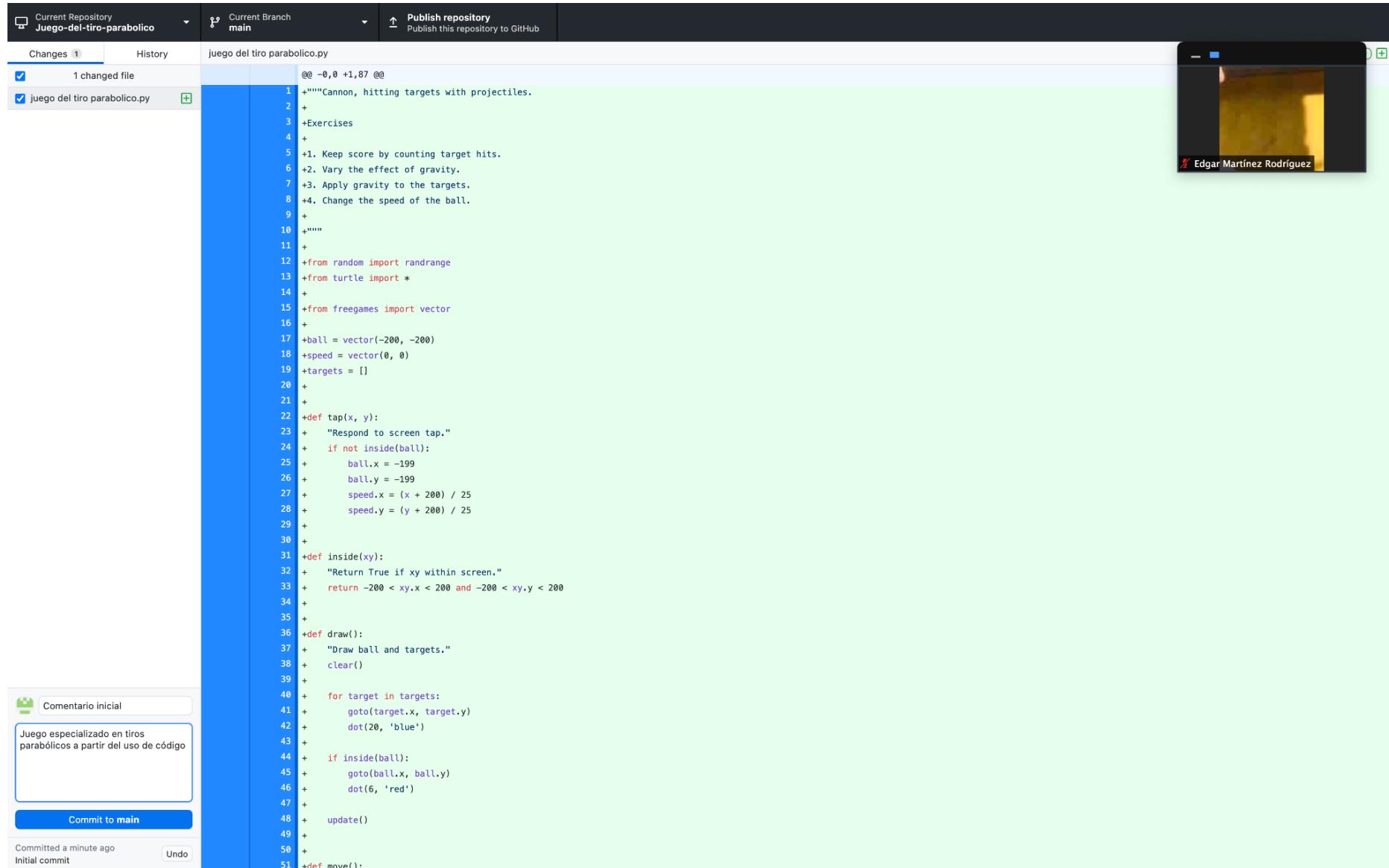
+
+"""
+
+from random import randrange
+from turtle import *
+
+from freegames import vector
+
+ball = vector(-200, -200)
+speed = vector(0, 0)
+targets = []
+
+
+def tap(x, y):
+    "Respond to screen tap."
+    if not inside(ball):
+        ball.x = -199
+        ball.y = -199
+        speed.x = (x + 200) / 25
+        speed.y = (y + 200) / 25
+
+
+def inside(xy):
+    "Return True if xy within screen."
+    return -200 < xy.x < 200 and -200 < xy.y < 200
+
+
+def draw():
+    "Draw ball and targets."
+    clear()
+
+    for target in targets:
+        goto(target.x, target.y)
+        dot(20, 'blue')
+
+        if inside(ball):
+            goto(ball.x, ball.y)
+            dot(6, 'red')
+
+    update()
+
+
+def move():
+
```

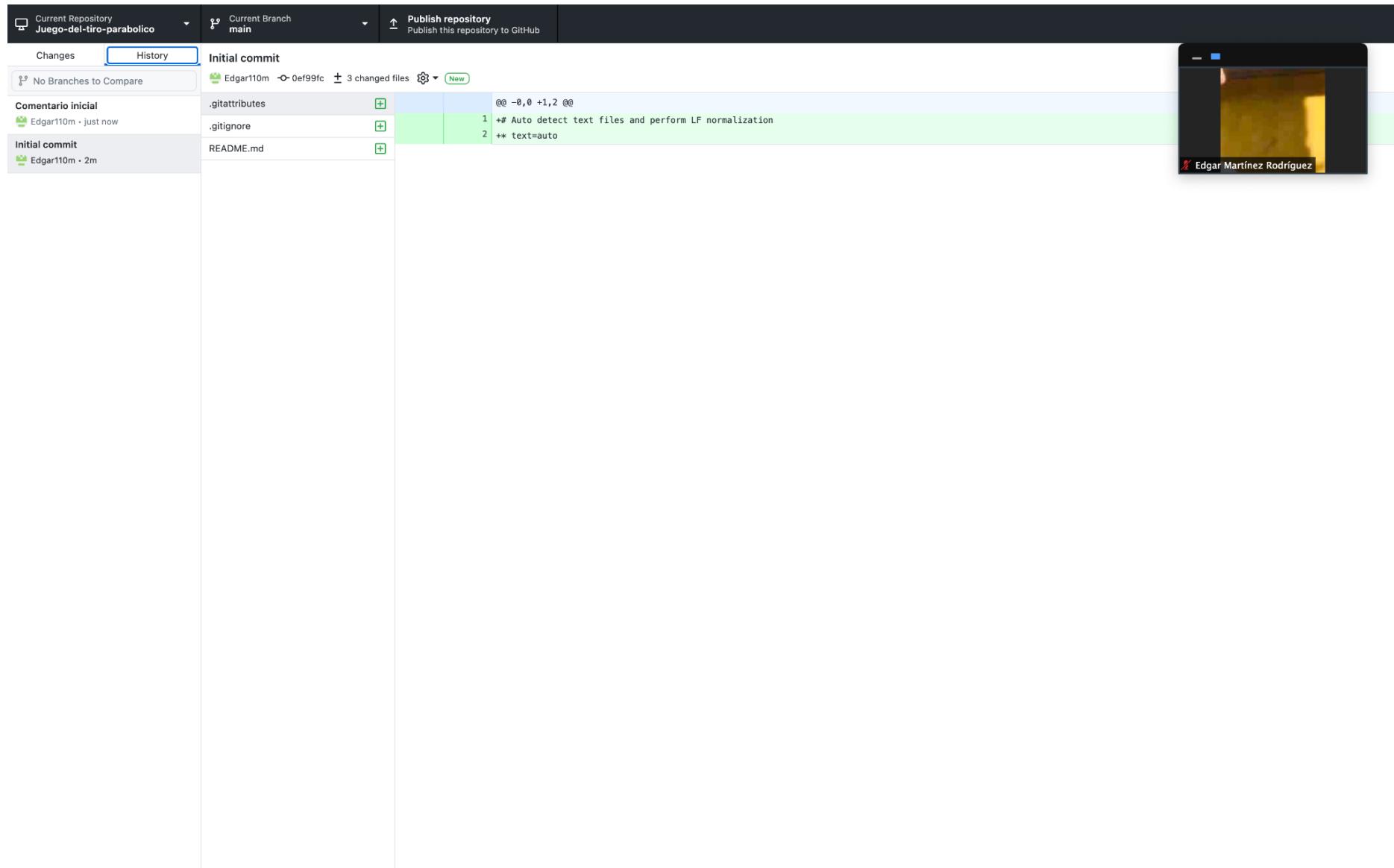
Comentario inicial

Juego especializado en tiros parabólicos a partir del uso de código

Commit to main

Committed a minute ago Initial commit Undo





The screenshot shows the GitHub interface for a repository named "Juego-del-tiro-parabolico". The current branch is "main". A "Publish repository" button is visible at the top right.

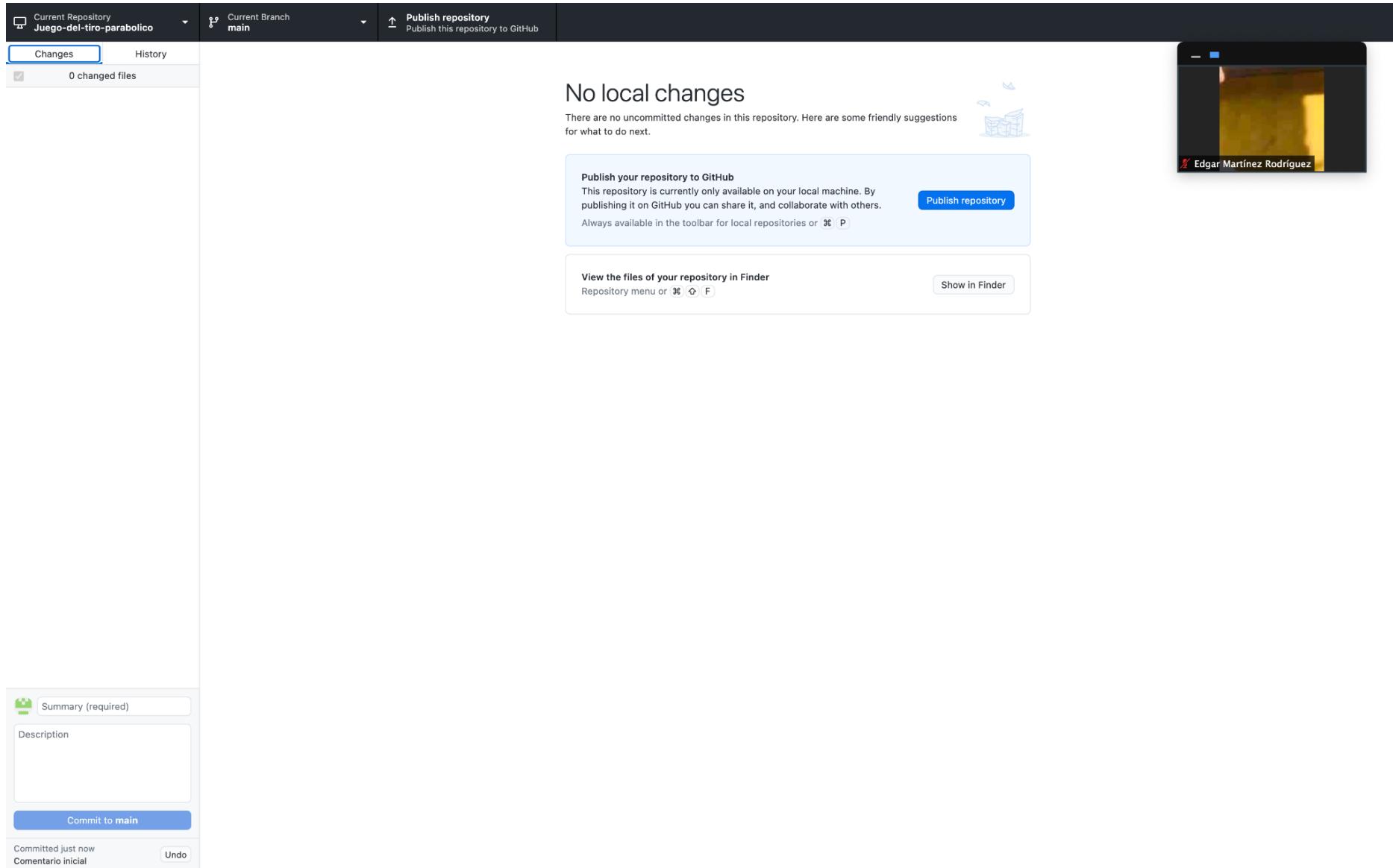
The main area displays the commit history:

- Initial commit** (Edgar110m - 0ef99fc) - 3 changed files:
 - .gitattributes: @@ -0,0 +1,2 @@
1 +# Auto detect text files and perform LF normalization
2 ** text=auto
 - .gitignore: (empty)
 - README.md: (empty)
- Comentario inicial** (Edgar110m - just now) - 0 changed files (empty)

A sidebar on the left lists repository details:

- Current Repository: Juego-del-tiro-parabolico
- Current Branch: main
- Publish repository: Publish this repository to GitHub
- Changes (selected)
- History
- No Branches to Compare
- Initial commit (selected)
- Comentario inicial
- Initial commit

At the bottom right, there is a profile picture of Edgar Martínez Rodríguez and his name.



Current Repository
Juego-del-tiro-parabolico

Current Branch
main

Publish repository
Publish this repository to GitHub

Changes History
0 changed files

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.

Publish your repository to GitHub
This repository is currently only available on your local machine. By publishing it on GitHub you can share it, and collaborate with others.
Always available in the toolbar for local repositories or ⌘ P

Publish repository

View the files of your repository in Finder
Repository menu or ⌘ F

Show in Finder

Summary (required)

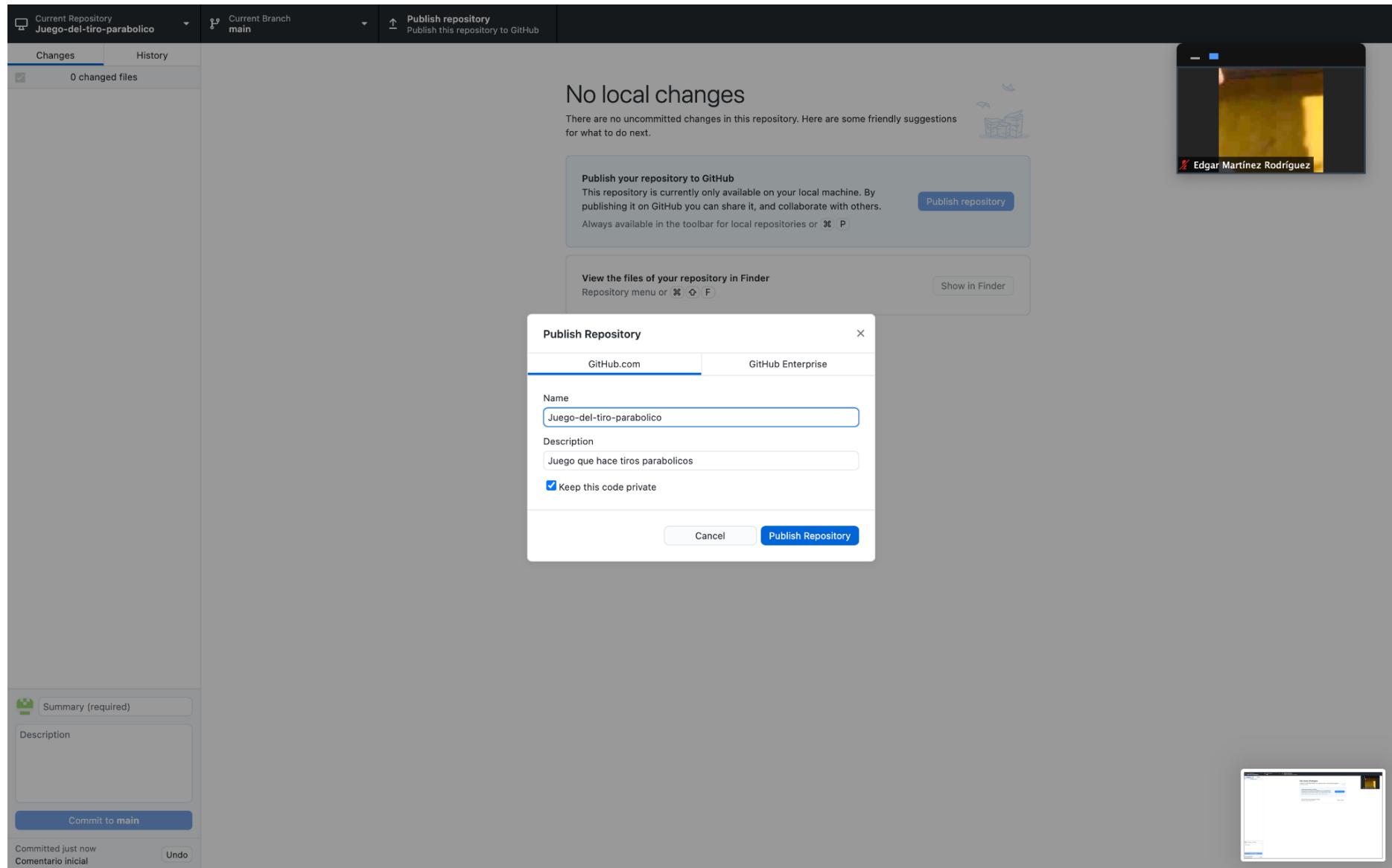
Description

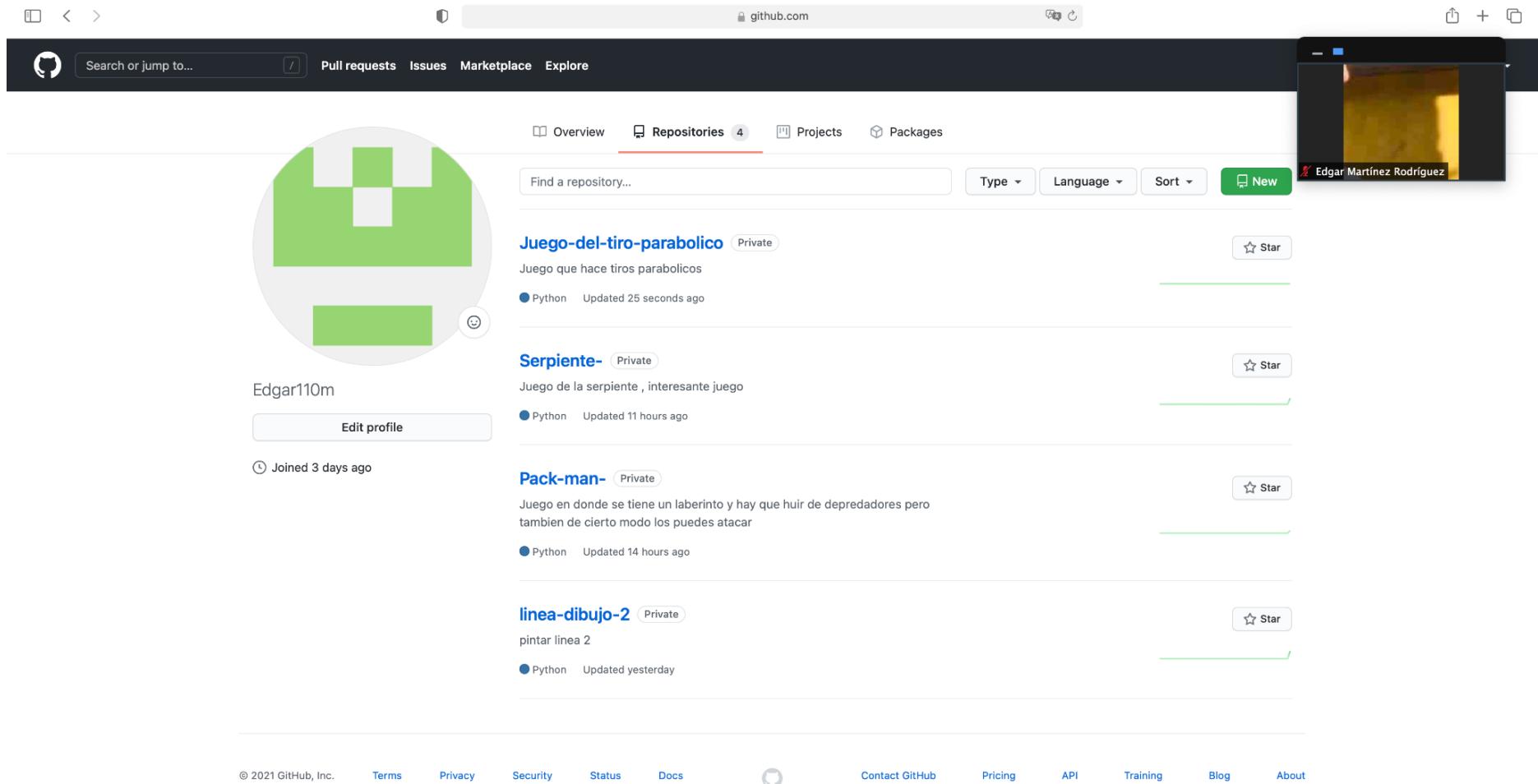
Commit to main

Committed just now
Comentario inicial

Undo

Edgar Martínez Rodríguez





The screenshot shows a GitHub user profile for **Edgar110m**. The profile picture is a green circle with a white checkered pattern. The user joined 3 days ago. The main navigation bar at the top includes **Overview**, **Repositories 4** (which is highlighted), **Projects**, and **Packages**. A search bar and filter options for Type, Language, Sort, and a New button are also present.

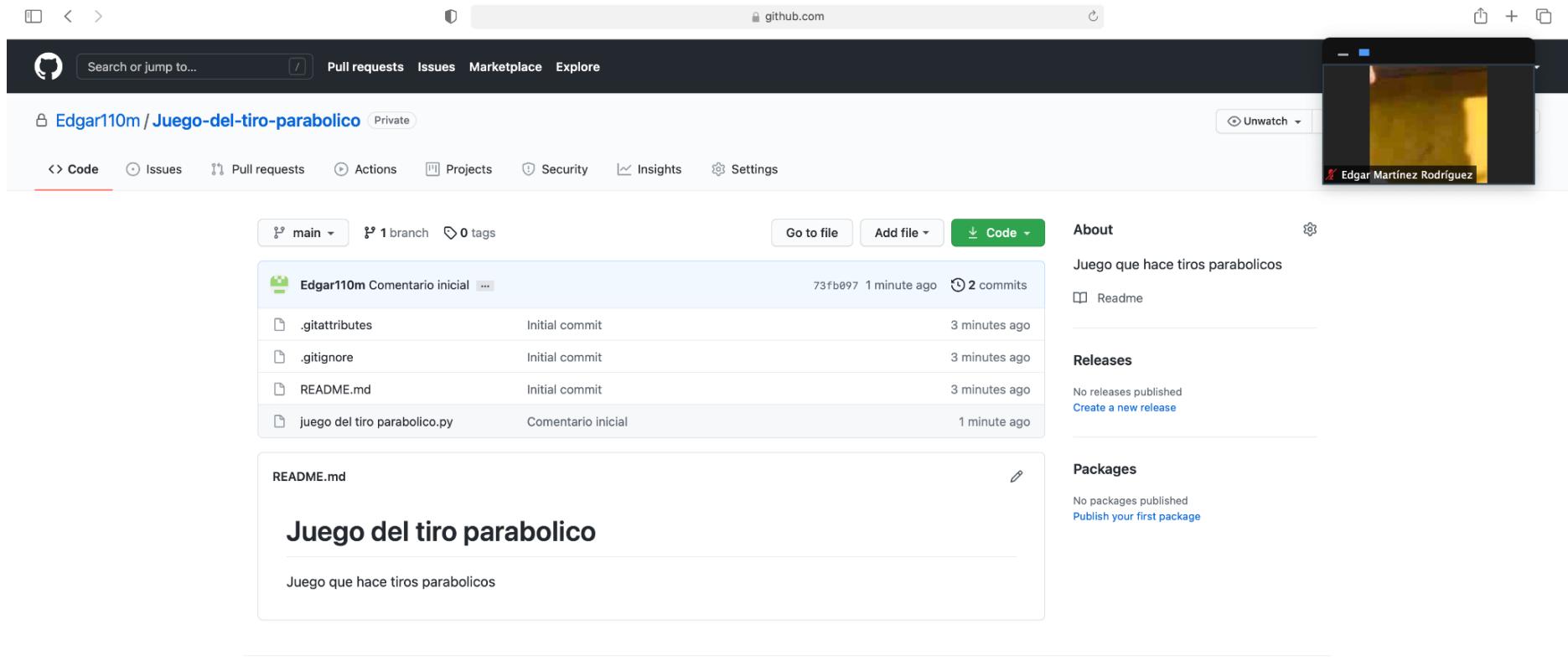
Juego-del-tiro-parabolico (**Private**)
Juego que hace tiros parabolicos
Python Updated 25 seconds ago

Serpiente- (**Private**)
Juego de la serpiente , interesante juego
Python Updated 11 hours ago

Pack-man- (**Private**)
Juego en donde se tiene un laberinto y hay que huir de depredadores pero tambien de cierto modo los puedes atacar
Python Updated 14 hours ago

linea-dibujo-2 (**Private**)
pintar linea 2
Python Updated yesterday

At the bottom of the page, there are links for **© 2021 GitHub, Inc.**, **Terms**, **Privacy**, **Security**, **Status**, **Docs**, **Contact GitHub**, **Pricing**, **API**, **Training**, **Blog**, and **About**.



The screenshot shows a GitHub repository page. At the top, there's a navigation bar with links for Pull requests, Issues, Marketplace, and Explore. Below that, the repository name is shown as `Edgar110m / Juego-del-tiro-parabolico` (Private). The main menu includes Code, Issues, Pull requests, Actions, Projects, Security, Insights, and Settings. On the left, there's a sidebar with options for main, branches, tags, Go to file, Add file, and Code. The repository has 1 branch and 0 tags. The commit history shows two commits from Edgar110m: 'Comentario inicial' (Initial commit) at 73fb097, 1 minute ago, and another 'Comentario inicial' at 73fb097, 3 minutes ago. The README.md file contains the following content:

```
Juego del tiro parabolico
Juego que hace tiros parabolicos
```

On the right side, there are sections for About (described as 'Juego que hace tiros parabolicos'), Releases (no releases published), and Packages (no packages published).

© 2021 GitHub, Inc.

Terms

Privacy

Security

Status

Docs



Contact GitHub

Pricing

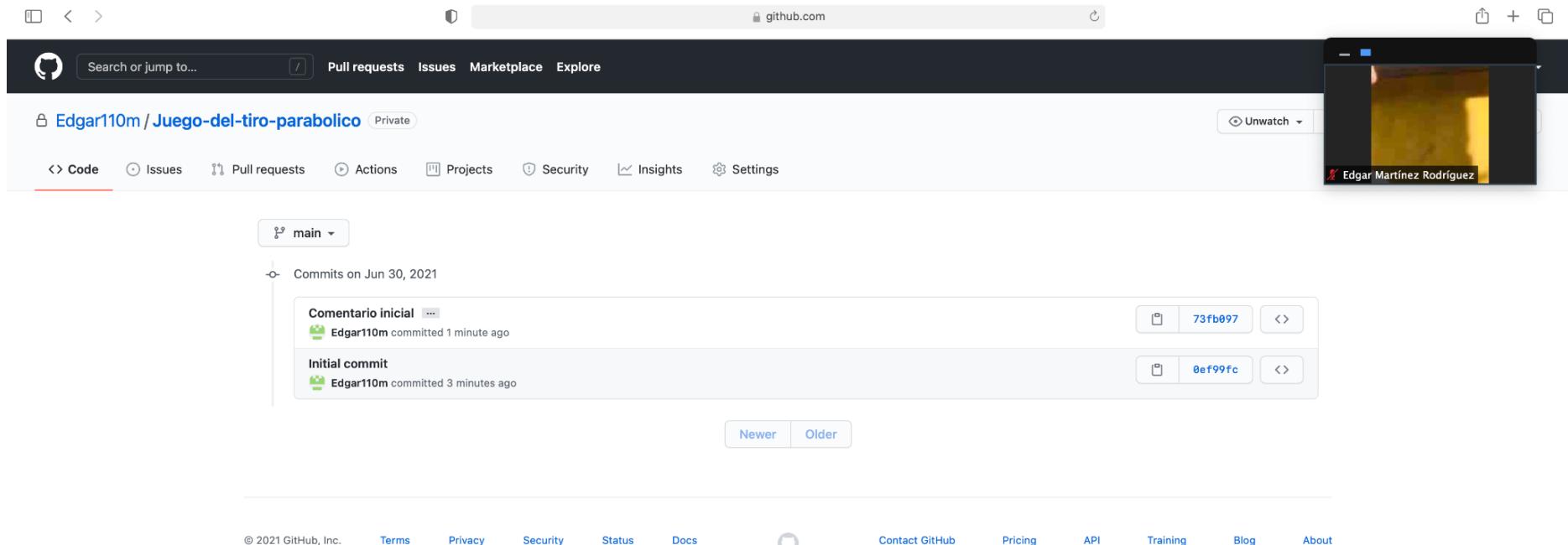
API

Training

Blog

About

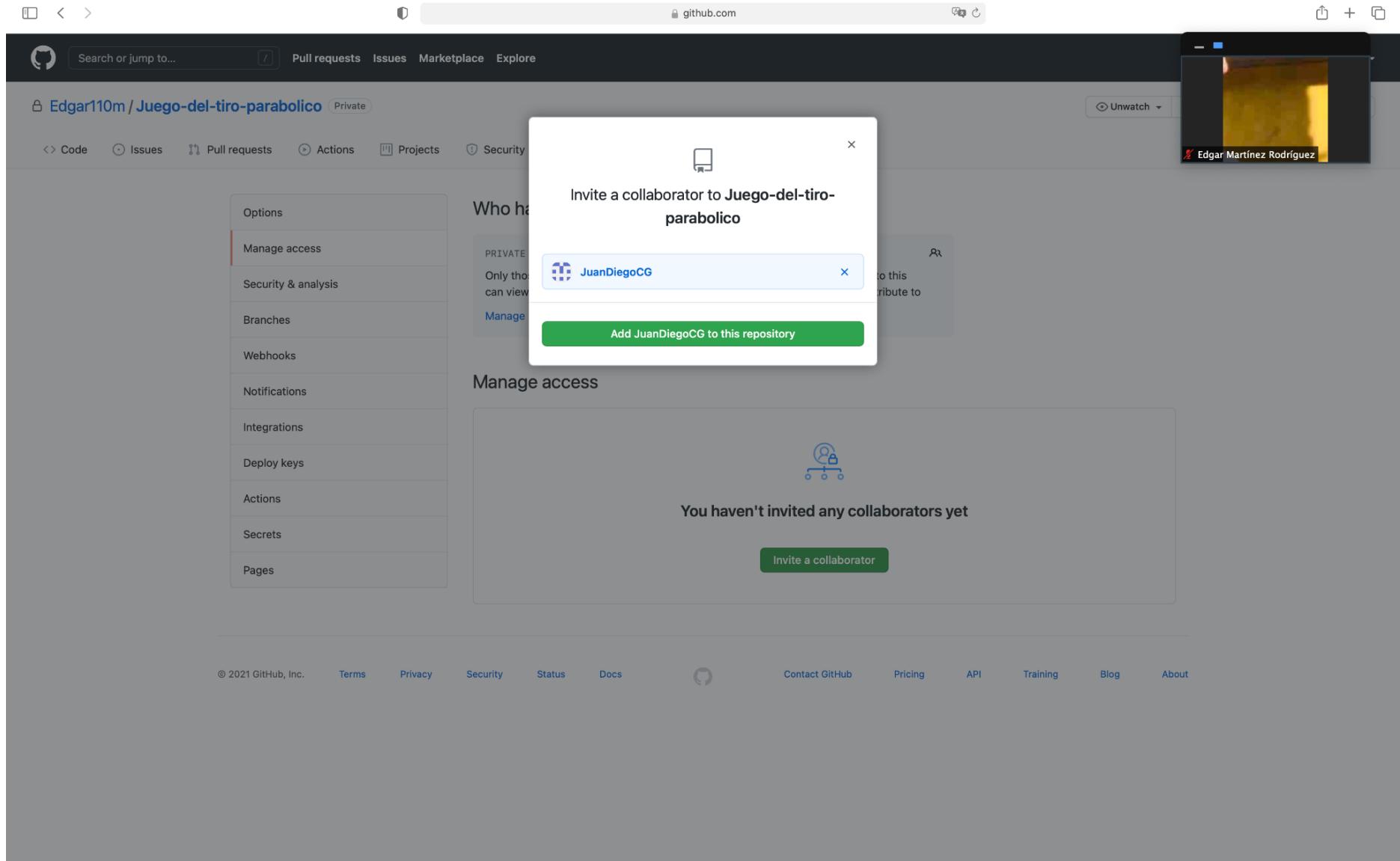




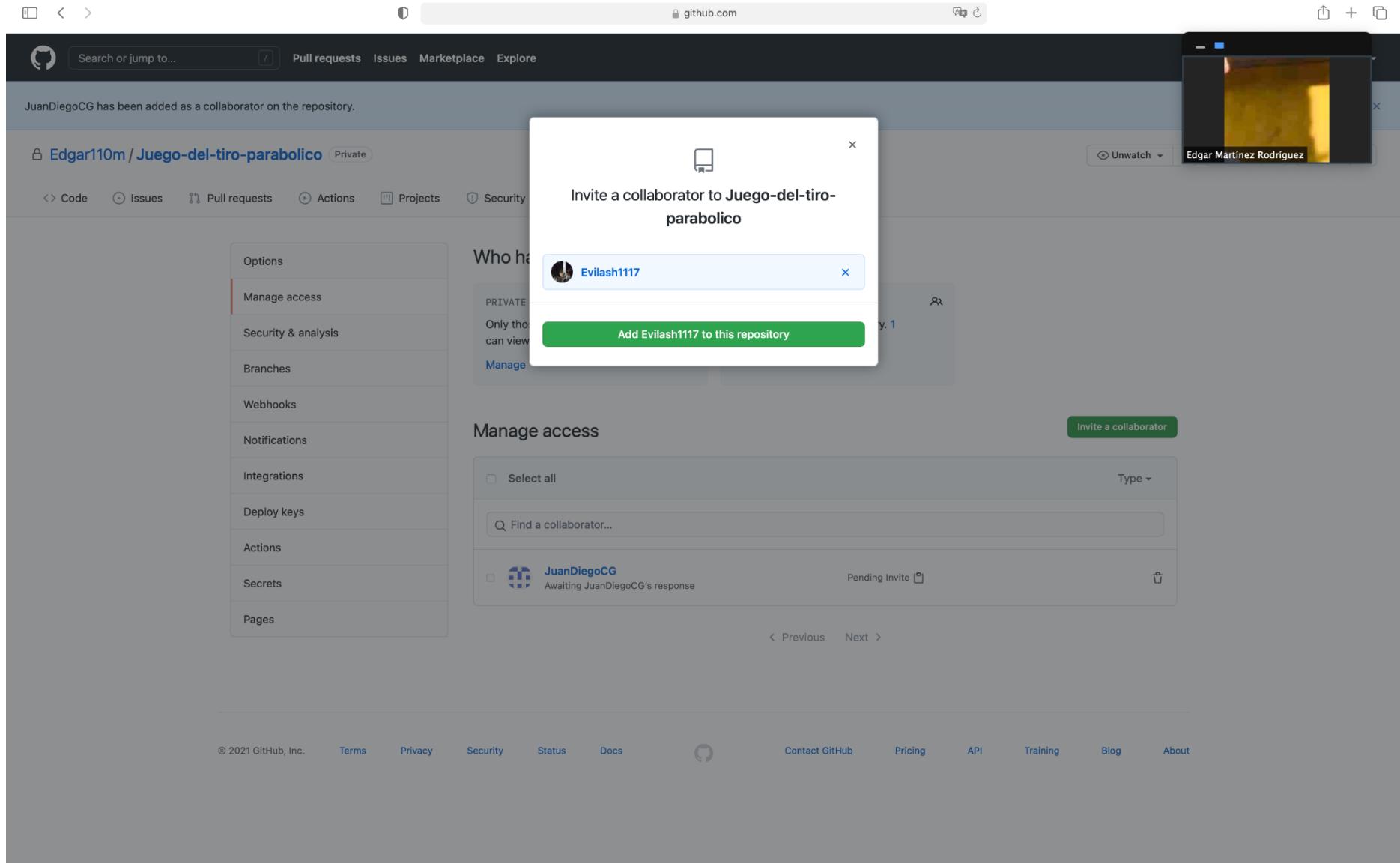
The screenshot shows a GitHub repository page for **Edgar110m/Juego-del-tiro-parabolico**. The repository is private. The main tab is selected, showing the commit history for the **main** branch. Two commits are visible:

- Comentario inicial** (Edgar110m committed 1 minute ago) - Commit hash: `73fb097`
- Initial commit** (Edgar110m committed 3 minutes ago) - Commit hash: `0ef99fc`

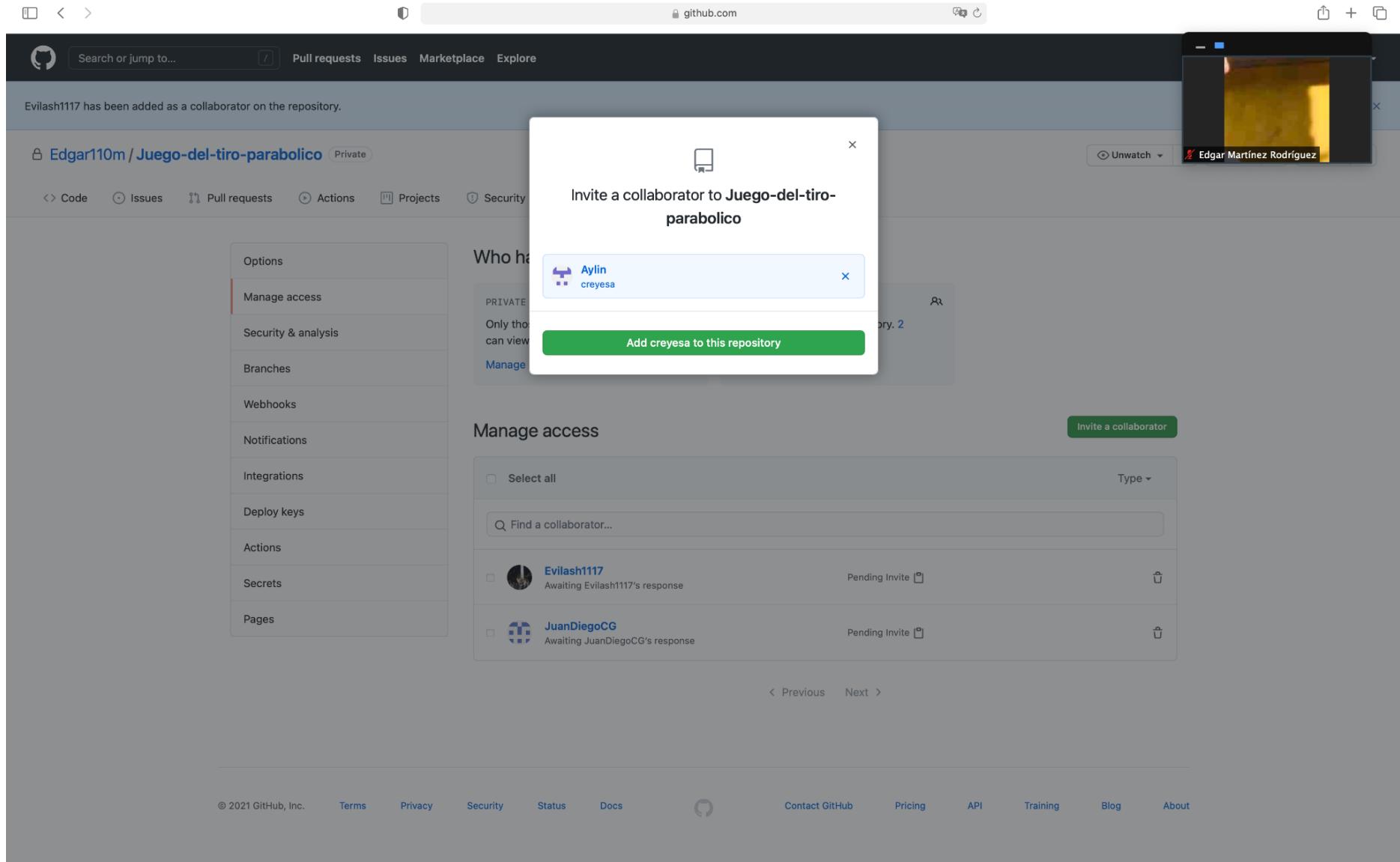
At the bottom of the commit list, there are "Newer" and "Older" buttons. The GitHub footer includes links to Terms, Privacy, Security, Status, Docs, Contact GitHub, Pricing, API, Training, Blog, and About.



The screenshot shows a GitHub repository page for "Edgar110m / Juego-del-tiro-parabolico". The repository is private. A modal dialog box is open, titled "Invite a collaborator to Juego-del-tiro-parabolico". Inside the dialog, there is a list of users under the heading "Who has access?". One user, "JuanDiegoCG", is listed with a small profile icon. Below the list is a green button labeled "Add JuanDiegoCG to this repository". The background of the page shows the repository's main interface, including a sidebar with options like "Manage access", "Security & analysis", "Branches", and "Webhooks". At the bottom of the page, there is a footer with links to GitHub's terms, privacy policy, security information, status, documentation, contact form, pricing, API, training, blog, and about section.



The screenshot shows a GitHub repository page for "Edgar110m / Juego-del-tiro-parabolico". A modal dialog box titled "Invite a collaborator to Juego-del-tiro-parabolico" is open, displaying the user "Evilash1117" in the search input field. Below the input field, it says "PRIVATE" and "Only those with explicit permissions can view". A green button labeled "Add Evilash1117 to this repository" is prominently displayed. In the background, the repository's main page shows a message: "JuanDiegoCG has been added as a collaborator on the repository." On the right side of the screen, there is a sidebar with various repository management options like "Code", "Issues", "Pull requests", "Actions", "Projects", and "Security". At the bottom of the page, there is a footer with links to "Contact GitHub", "Pricing", "API", "Training", "Blog", and "About".



The screenshot shows a GitHub repository settings page for "Edgar110m / Juego-del-tiro-parabolico". A modal dialog box is open, titled "Invite a collaborator to Juego-del-tiro-parabolico". Inside the dialog, there is a search bar containing "Aylin creyesa" and a green button labeled "Add creyesa to this repository". The background shows the repository's main settings page with a sidebar containing options like Options, Manage access, Security & analysis, Branches, Webhooks, Notifications, Integrations, Deploy keys, Actions, Secrets, and Pages. The "Manage access" section lists two pending invites: "Evilash1117" and "JuanDiegoCG", both with status "Pending Invite".

Evilash1117 has been added as a collaborator on the repository.

Edgar110m / Juego-del-tiro-parabolico (Private)

Code Issues Pull requests Actions Projects Security

Options Manage access Security & analysis Branches Webhooks Notifications Integrations Deploy keys Actions Secrets Pages

Who has access to this repository?

Aylin creyesa

PRIVATE Only those with explicit permissions can view this repository.

Add creyesa to this repository

Manage access

Select all Type ▾

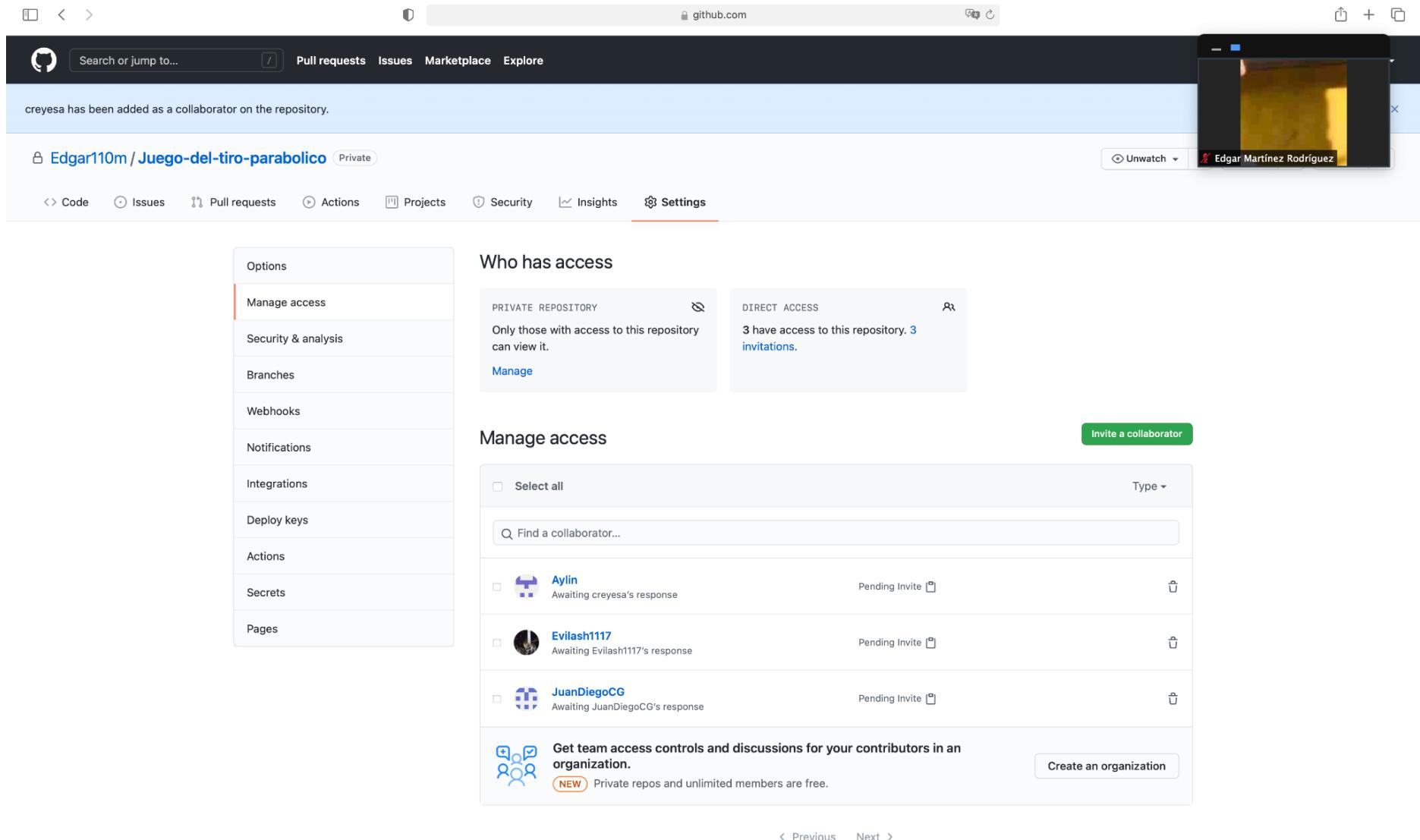
Find a collaborator...

Evilash1117 Awaiting Evilash1117's response Pending Invite

JuanDiegoCG Awaiting JuanDiegoCG's response Pending Invite

< Previous Next >

© 2021 GitHub, Inc. Terms Privacy Security Status Docs Contact GitHub Pricing API Training Blog About



The screenshot shows the GitHub repository settings page for the repository `Edgar110m / Juego-del-tiro-parabolico`. The repository is private.

Who has access

PRIVATE REPOSITORY
Only those with access to this repository can view it.

DIRECT ACCESS
3 have access to this repository. 3 invitations.

Manage access

Invite a collaborator

Select all Type ▾

Find a collaborator...

User	Status	Action
Aylin	Awaiting creyesa's response	Pending Invite
Evilash1117	Awaiting Evilash1117's response	Pending Invite
JuanDiegoCG	Awaiting JuanDiegoCG's response	Pending Invite

Create an organization

Get team access controls and discussions for your contributors in an organization.
(NEW) Private repos and unlimited members are free.

< Previous Next >

Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Fetch origin: Last fetched just now

Comentario inicial

Edgar110m · 73fb097 · 1 changed file · New

Juego especializado en tiros parabólicos a partir del uso de código

juego del tiro parabolico.py

```

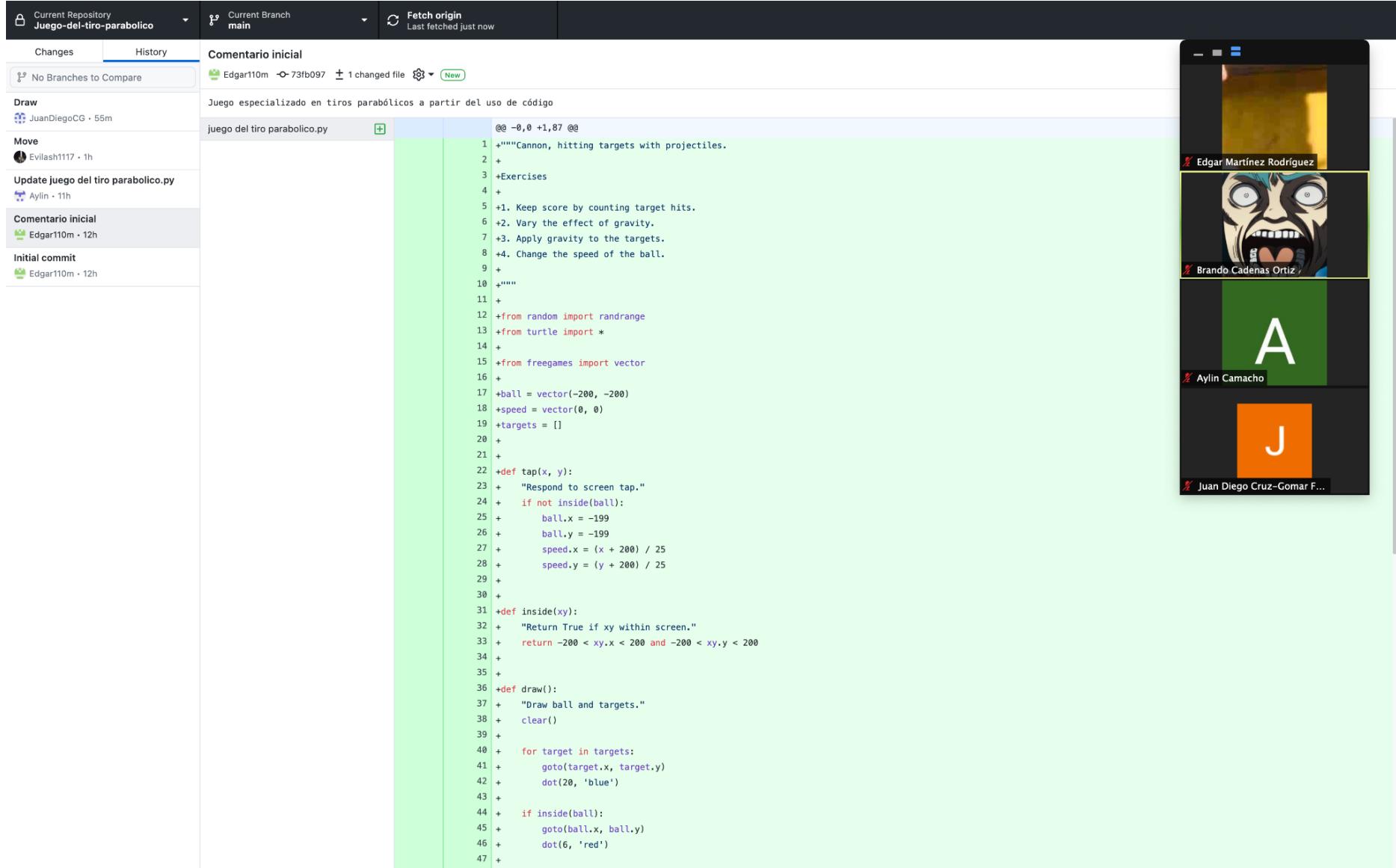
@@ -0,0 +1,87 @@
+"""Cannon, hitting targets with projectiles.

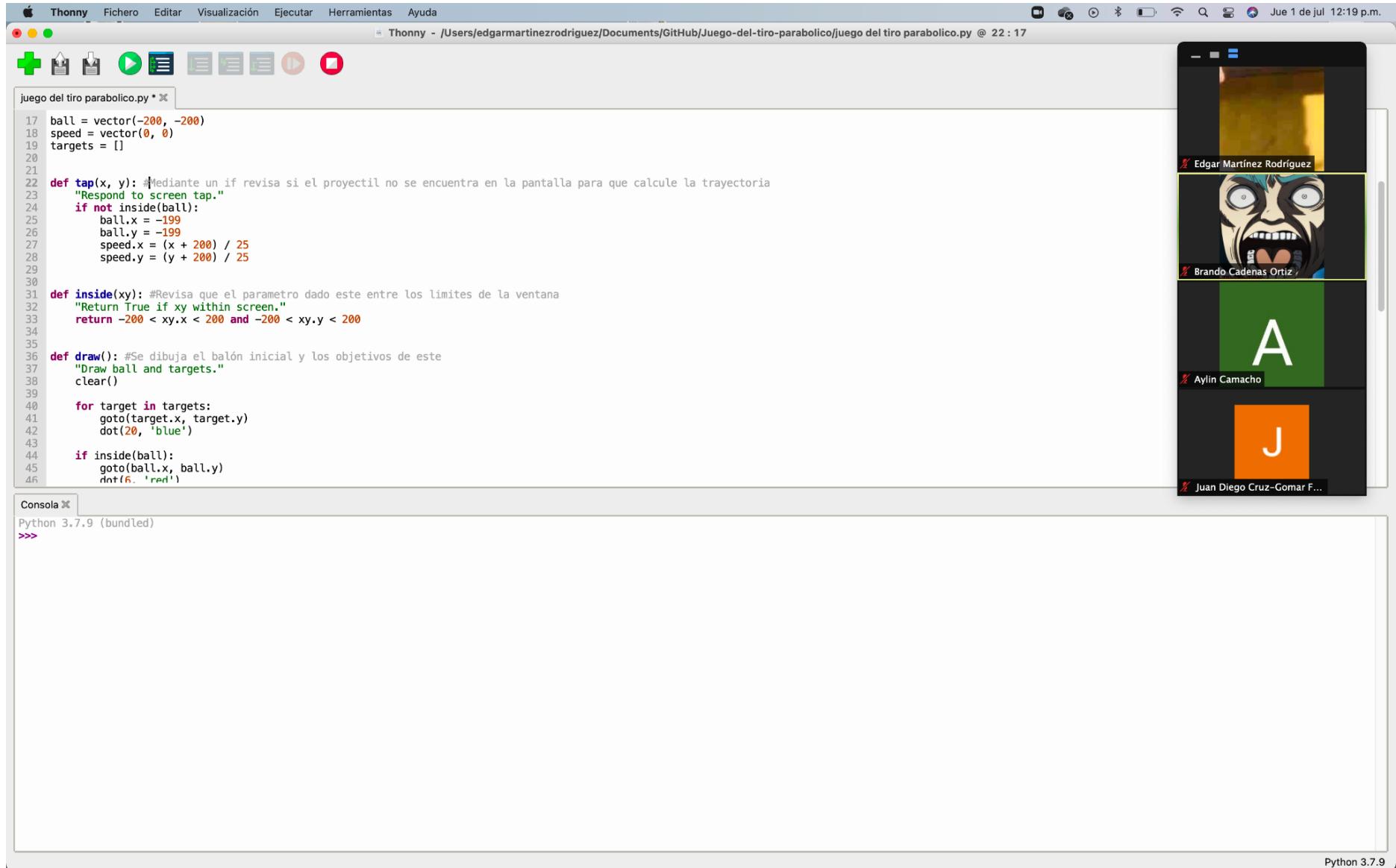
+
+Exercises
+
+1. Keep score by counting target hits.
+2. Vary the effect of gravity.
+3. Apply gravity to the targets.
+4. Change the speed of the ball.

+
+"""

+from random import randrange
+from turtle import *
+
+from freegames import vector
+
+ball = vector(-200, -200)
+speed = vector(0, 0)
+targets = []
+
+def tap(x, y):
+    "Respond to screen tap."
+    if not inside(ball):
+        ball.x = -199
+        ball.y = -199
+        speed.x = (x + 200) / 25
+        speed.y = (y + 200) / 25
+
+def inside(xy):
+    "Return True if xy within screen."
+    return -200 < xy.x < 200 and -200 < xy.y < 200
+
+def draw():
+    "Draw ball and targets."
+    clear()
+
+    for target in targets:
+        goto(target.x, target.y)
+        dot(20, 'blue')
+
+    if inside(ball):
+        goto(ball.x, ball.y)
+        dot(6, 'red')

+
+
```





The screenshot shows the Thonny IDE interface. The top menu bar includes: Fichero, Editar, Visualización, Ejecutar, Herramientas, Ayuda. The title bar indicates the file is "juego del tiro parabolico.py" and the current line is "22 : 17". The code editor contains the following Python script:

```
17 ball = vector(-200, -200)
18 speed = vector(0, 0)
19 targets = []
20
21 def tap(x, y): #Mediante un if revisa si el proyectil no se encuentra en la pantalla para que calcule la trayectoria
22     "Responde to screen tap."
23     if not inside(ball):
24         ball.x = -199
25         ball.y = -199
26         speed.x = (x + 200) / 25
27         speed.y = (y + 200) / 25
28
29
30 def inside(xy): #Revisa que el parametro dado este entre los limites de la ventana
31     "Return True if xy within screen."
32     return -200 < xy.x < 200 and -200 < xy.y < 200
33
34
35 def draw(): #Se dibuja el balón inicial y los objetivos de este
36     "Draw ball and targets."
37     clear()
38
39     for target in targets:
40         goto(target.x, target.y)
41         dot(20, 'blue')
42
43     if inside(ball):
44         goto(ball.x, ball.y)
45         dot(6, 'red')
```

The bottom left panel is titled "Consola" and shows the message "Python 3.7.9 (bundled)". The bottom right corner of the IDE window displays "Python 3.7.9". On the right side of the interface, there is a preview window showing a mobile application interface with four cards. Each card has a small profile picture at the top, followed by a large letter and a name. The cards are arranged vertically:

- Top card: Edgar Martínez Rodríguez (green background, letter A)
- Second card: Brando Cadenas Ortiz (blue background, letter J)
- Third card: Aylin Camacho (green background, letter A)
- Bottom card: Juan Diego Cruz-Gómez F... (orange background, letter J)

Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Fetch origin: Last fetched 11 minutes ago

Changes 1 History juego del tiro parabolico.py

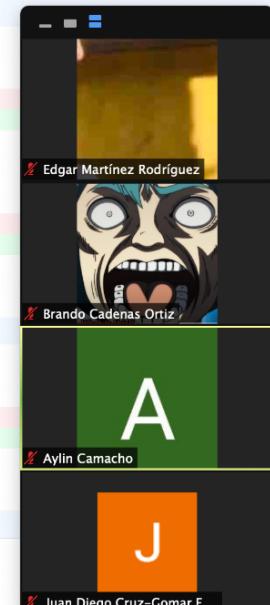
```

@@ -19,7 +19,7 @@ speed = vector(0, 0)
19   19 targets = []
20   20
21   21
22   22 -def tap(x, y):
+def tap(x, y): #Mediante un if revisa si el proyectil no se encuentra en la pantalla para que calcule la trayectoria.
23   23     "Respond to screen tap."
24   24     if not inside(ball):
25   25       ball.x = -199
26   26
27   27 @@ -28,12 +28,12 @@ def tap(x, y):
28   28     speed.y = (y + 200) / 25
29   29
30   30
31   31 -def inside(xy):
+def inside(xy): #Revisa que el parametro dado este entre los limites de la ventana
32   32     "Return True if xy within screen."
33   33     return -200 < xy.x < 200 and -200 < xy.y < 200
34   34
35   35
36   36 -def draw(): #Se dibuja el balón inicial y los objetivos de este
+def draw(): #Se dibuja el balón inicial y los objetivos de este
37   37     "Draw ball and targets."
38   38     clear()
39   39
40   40 @@ -58,7 +58,7 @@ def move():#Movimiento debera ser mayor a 0
41   58     for target in targets:#Asigna velocidad a todos los objetivos
42   59       target.x -= 0.75
43   60
44   61 -     if inside(ball):#Asigna la velocidad del proyectil
+     if inside(ball):#Asigna la velocidad del proyectil
45   62       speed.y -= 0.55
46   63       ball.move(speed)
47   64
48   65 @@ @@
```

Tap and inside

Se comentó el código describiendo las partes importantes del mismo

+ Commit to main



Edgar Martínez Rodríguez

Brando Cárdenas Ortiz

Aylin Camacho

Juan Diego Cruz-Gomar F...

Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Push origin: Last fetched 11 minutes ago

Changes **History** Comentario inicial

No Branches to Compare

Edgar110m · 73fb097 · 1 changed file · New

Tap and inside
Edgar110m · just now

Draw
JuanDiegoCG · 1h

Move
Evilash1117 · 1h

Update juego del tiro parabolico.py
Aylin · 1h

Comentario inicial
Edgar110m · 12h

Initial commit
Edgar110m · 12h

Comentario inicial

Juego especializado en tiros parabólicos a partir del uso de código

juego del tiro parabolico.py

```

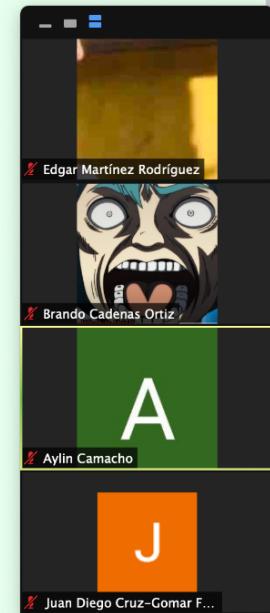
@@ -0,0 +1,87 @@
+"""Cannon, hitting targets with projectiles.

+Exercises
+
+1. Keep score by counting target hits.
+2. Vary the effect of gravity.
+3. Apply gravity to the targets.
+4. Change the speed of the ball.

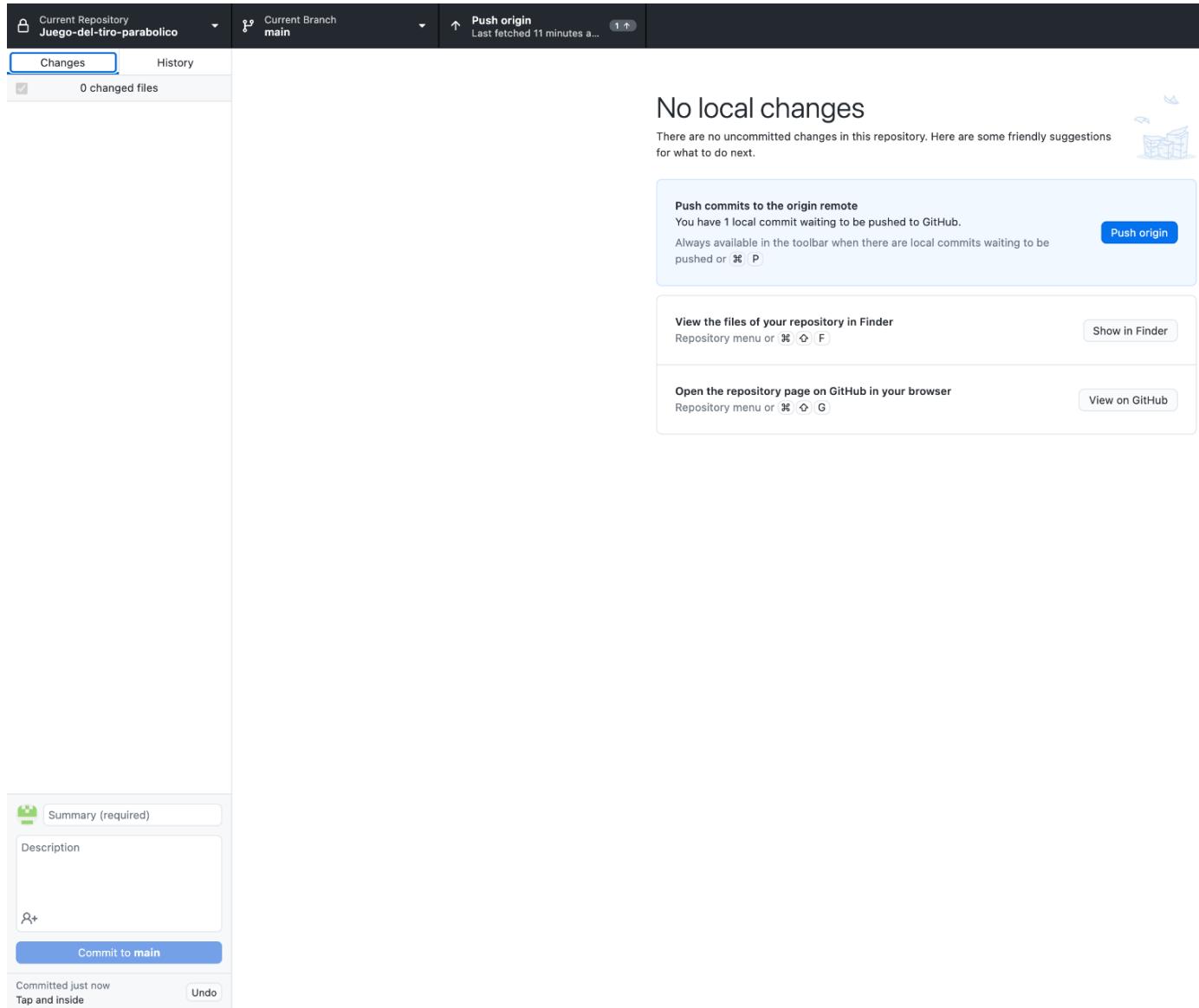
+"""

+from random import randrange
+from turtle import *
+
+from freegames import vector
+
+ball = vector(-200, -200)
+speed = vector(0, 0)
+targets = []
+
+def tap(x, y):
+    "Respond to screen tap."
+    if not inside(ball):
+        ball.x = -199
+        ball.y = -199
+        speed.x = (x + 200) / 25
+        speed.y = (y + 200) / 25
+
+def inside(xy):
+    "Return True if xy within screen."
+    return -200 < xy.x < 200 and -200 < xy.y < 200
+
+def draw():
+    "Draw ball and targets."
+    clear()
+
+    for target in targets:
+        goto(target.x, target.y)
+        dot(20, 'blue')
+
+    if inside(ball):
+        goto(ball.x, ball.y)
+        dot(6, 'red')


```



Edgar Martínez Rodríguez
Brando Cárdenas Ortiz
A
Aylin Camacho
J
Juan Diego Cruz-Gomar F...



Current Repository: Juego-del-tiro-parabolico

Current Branch: main

Push origin: Last fetched 11 minutes ago

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.

Push commits to the origin remote

You have 1 local commit waiting to be pushed to GitHub.

Always available in the toolbar when there are local commits waiting to be pushed or `⌘ P`

Push origin

View the files of your repository in Finder

Repository menu or `⌘ ⌘ F`

Show in Finder

Open the repository page on GitHub in your browser

Repository menu or `⌘ ⌘ G`

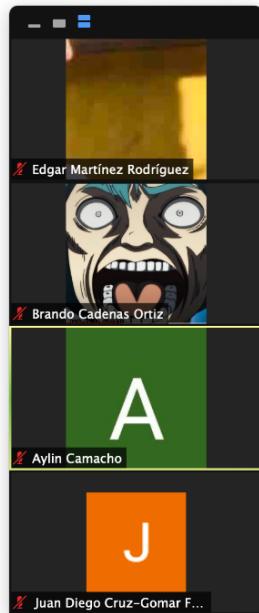
View on GitHub

Summary (required)

Description

+ Commit to main

Committed just now Tap and inside Undo



Current Repository: Juego-del-tiro-parabolico | Current Branch: main | Fetch origin: Last fetched just now

Changes History Tap and inside

No Branches to Compare

Tap and inside

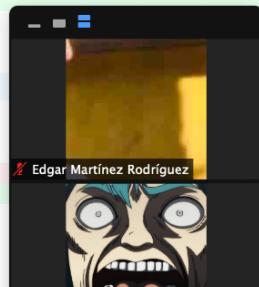
Edgar110m · 353de16 · 1 changed file · New

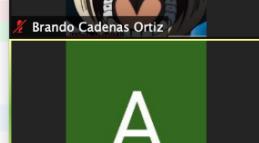
Se comento el código describiendo las partes importantes del mismo

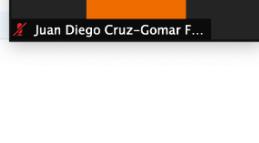
juego del tiro parabolico.py

```

19     19 @@ -19,7 +19,7 @@ speed = vector(0, 0)
20     20 targets = []
21     21
22     22 -def tap(x, y):
22 +def tap(x, y): #Mediente un if revisa si el proyectil no se encuentra en la pantalla para que calcule la trayectoria
23     23     "Respond to screen tap."
24     24     if not inside(ball):
25     25         ball.x = -199
26
27     27     @@ -28,12 +28,12 @@ def tap(x, y):
28     28         speed.y = (y + 200) / 25
29     29
30     30
31     31 -def inside(xy):
31 +def inside(xy): #Revisa que el parametro dado este entre los limites de la ventana
32     32     "Return True if xy within screen."
33     33     return -200 < xy.x < 200 and -200 < xy.y < 200
34     34
35     35
36     36 -def draw(): #Se dibuja el balón inicial y los objetivos de este
36 +def draw(): #Se dibuja el balón inicial y los objetivos de este
37     37     "Draw ball and targets."
38     38     clear()
39     39
40
41     41     @@ -58,7 +58,7 @@ def move():#Movimiento debera ser mayor a 0
42     42         for target in targets:#Asigana velocidad a todos los objetivos
43     43             target.x -= 0.75
44
45     45     61 -     if inside(ball):#Asigna la velocidad del proyectil
46     61 +     if inside(ball):#Asigna la velocidad del proyectil
47     62         speed.y -= 0.55
48     63         ball.move(speed)
49     64
50
51     51     @@ @@
```







Screenshot of a GitHub repository page for "Edgar110m / Juego-del-tiro-parabolico".

Code tab is selected.

Commits section:

- Edgar110m Tap and inside ... (353de16, 34 seconds ago)
- .gitattributes (Initial commit, 13 hours ago)
- .gitignore (Initial commit, 13 hours ago)
- README.md (Initial commit, 13 hours ago)
- juego del tiro parabolico.py (Tap and inside, 34 seconds ago)

About section:

Juego que hace tiros parabolicos

Readme

Releases

No releases published

[Create a new release](#)

Packages

No packages published

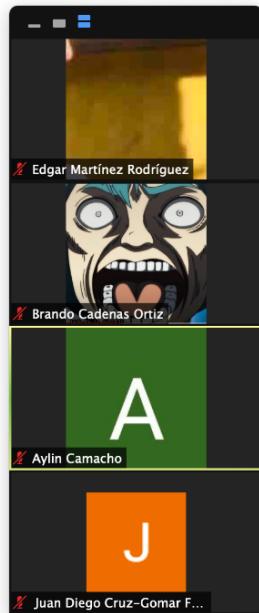
[Publish your first package](#)

Contributors (4)

- Edgar110m
- creyesa Aylin
- JuanDiegoCG
- Evilash1117

Languages

Python 100.0%



Brando Cadenas Ortiz

Edgar110m / Juego-del-tiro-parabolico Private

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Security](#) [Insights](#)

[main](#) [1 branch](#) [0 tags](#) [Go to file](#) [Add file](#) [Code](#)

 **creyesa** Update juego del tiro parabolico.py ... 7b34033 9 hours ago 3 commits

File	Commit Message	Time Ago
.gitattributes	Initial commit	10 hours ago
.gitignore	Initial commit	10 hours ago
README.md	Initial commit	10 hours ago
juego del tiro parabolico.py	Update juego del tiro parabolico.py	9 hours ago

README.md 

Juego del tiro parabolico

Juego que hace tiros parabolicos

Changes 1 History juego del tiro parabolico.py

juego del tiro parabolico.py

```

@@ -48,17 +48,17 @@ def draw():
    update()

@@ -51,17 +51,17 @@ def move():
    move()#el imlemento debiera ser mayor a 0
    "move ball and targets."
    if randrange(48) == 0:
        y = randrange(-150, 150)
        target = vector(200, y)
        targets.append(target)

@@ -58,17 +58,17 @@ for target in targets:
    for target in targets:#Alinea velocidad a todos los objetivos
        target.x -= 0.75

@@ -61,17 +61,17 @@ if inside(ball):
    if inside(ball):#asigna la velocidad del proyectil
        speedy -= 0.55
        ball.move(speed)

@@ -82,4 +82,4 @@ up()
tracer(False)
onscreenclick(tap)
move()

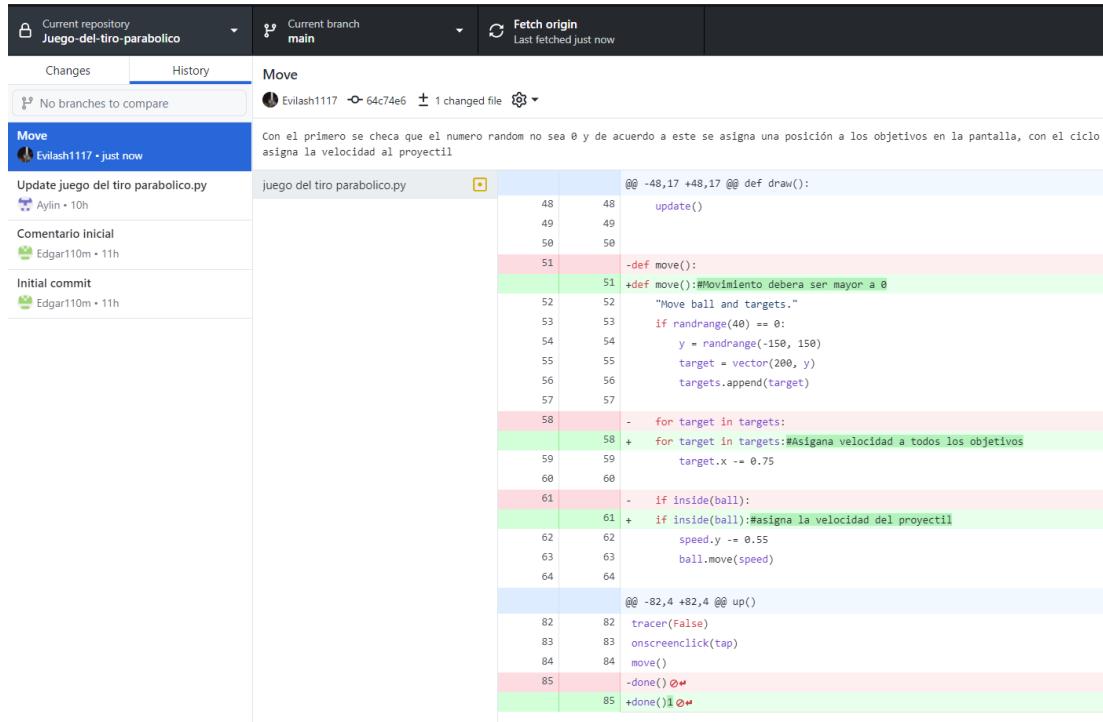
@@ -85,17 +85,17 @@ done() #done()
done()#done()

```

Move

Con el primero se checa que el numero random no sea 0 y de acuerdo a este se asigna una posición a los objetivos en la pantalla, con el ciclo for se atiende una velocidad a todos los objetivos.

Commit to main



Current repository: Juego-del-tiro-parabolico

Current branch: main

Last fetched just now

Changes History Move

Evilash1117 64c74e6 1 changed file

Move

Con el primero se checa que el numero random no sea 0 y de acuerdo a este se asigna una posición a los objetivos en la pantalla, con el ciclo t asigna la velocidad al proyectil

Update juego del tiro parabolico.py

Aylin • 10h

Comentario inicial

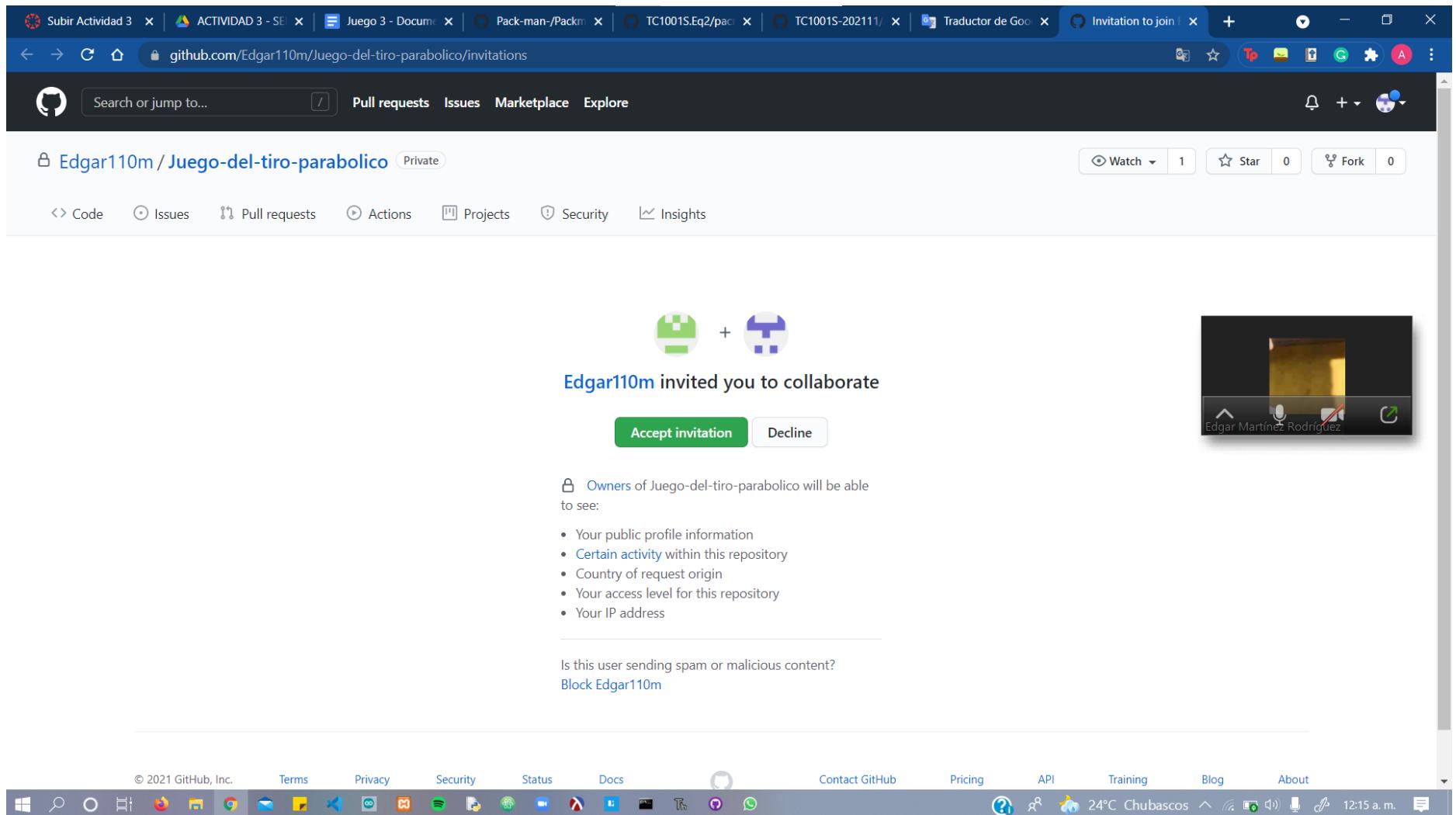
Edgar110m • 11h

Initial commit

Edgar110m • 11h

```

juego del tiro parabolico.py @@ -48,17 +48,17 @@ def draw():
    48     48     update()
    49     49
    50     50
  51 -def move():
+def move():#Movimiento debera ser mayor a 0
    51 +    "Move ball and targets."
    52     52     if randrange(40) == 0:
    53     53         y = randrange(-150, 150)
    54     54         target = vector(200, y)
    55     55         targets.append(target)
    56     56
    57     57
  58 -    for target in targets:
+    for target in targets:#Asigana velocidad a todos los objetivos
    58 +        target.x -= 0.75
    59     59
    60     60
  61 -    if inside(ball):
+    if inside(ball):#asigna la velocidad del proyectil
    61 +        speed.y -= 0.55
    62     62        ball.move(speed)
    63     63
    64     64
@@ -82,4 +82,4 @@ up()
  82     tracer(False)
  83     onscreenclick(tap)
  84     move()
  85 -done()#*
+done()#*
  85 +done()#*
  
```

Aylin Camacho Reyes

The screenshot shows a GitHub invitation dialog on a browser window. The title bar of the browser has multiple tabs open, including "Subir Actividad 3", "ACTIVIDAD 3 - SE", "Juego 3 - Documentación", "Pack-man-/Packman", "TC1001S.Eq2/pac", "TC1001S-202111/", "Traductor de Google", and "Invitation to join". The main content area is a GitHub repository page for "Edgar110m / Juego-del-tiro-parabolico" (Private). The repository has 1 watch, 0 stars, and 0 forks. Below the repository name are navigation links: Code, Issues, Pull requests, Actions, Projects, Security, and Insights. In the center, there's a message from "Edgar110m" inviting the user to collaborate, accompanied by two user icons. Below the message are "Accept invitation" and "Decline" buttons. A note explains what the owner can see if accepted. At the bottom, there's a link to report spam or malicious content. The browser's bottom bar shows various pinned icons and the system status.

Subir Actividad 3 | ACTIVIDAD 3 - SE | Juego 3 - Documentación | Pack-man-/Packman | TC1001S.Eq2/pac | TC1001S-202111/ | Traductor de Google | Invitation to join | + | - | X

github.com/Edgar110m/Juego-del-tiro-parabolico/invitations

Search or jump to... / Pull requests Issues Marketplace Explore

Edgar110m / Juego-del-tiro-parabolico Private

Watch 1 Star 0 Fork 0

Code Issues Pull requests Actions Projects Security Insights

Edgar110m invited you to collaborate

Accept invitation Decline

Owners of Juego-del-tiro-parabolico will be able to see:

- Your public profile information
- Certain activity within this repository
- Country of request origin
- Your access level for this repository
- Your IP address

Is this user sending spam or malicious content? [Block Edgar110m](#)

© 2021 GitHub, Inc. Terms Privacy Security Status Docs Contact GitHub Pricing API Training Blog About

Windows Search Firefox Google Mail Microsoft Edge Spotify Python Visual Studio Code WhatsApp Telegram

24°C Chubascos 12:15 a.m.

Thonny - C:\Users\52812\Documents\GitHub\Juego-del-tiro-parabolico\juego del tiro parabolico.py @ 74:1

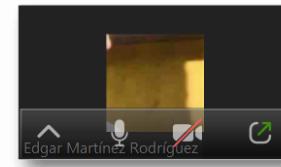
Archivo Editar Ver Ejecutar Device Herramientas Ayuda

Packman.py x PACKMAN.py x PACKMAN2.py x juego del tiro parabolico.py x

```
50
51 def move():
52     "Move ball and targets."
53     if randrange(40) == 0:
54         y = randrange(-150, 150)
55         target = vector(200, y)
56         targets.append(target)
57
58     for target in targets:
59         target.x -= 0.75
60
61     if inside(ball):
62         speed.y -= 0.55
63         ball.move(speed)
64
65     dupe = targets.copy()
66     targets.clear()
67
68     for target in dupe:
69         if abs(target - ball) > 13:
70             targets.append(target)
71
72     draw()
73
74
75
76     ontimer(move, 25)
77
78
79 setup(420, 420, 370, 0)
```

Shell x

```
pren = matn.rioor(porr / 20)
NameError: name 'math' is not defined
>>>
```



Edgar Martínez Rodríguez

Windows taskbar icons: File Explorer, Edge, Google Chrome, Mail, File Transfer, Spotify, Discord, Microsoft Teams, OneDrive, Task View, Taskbar settings.

System tray icons: Help, Network, Weather (24°C Chubascos), Battery, Volume, Network, 12:33 a.m., Taskbar settings.

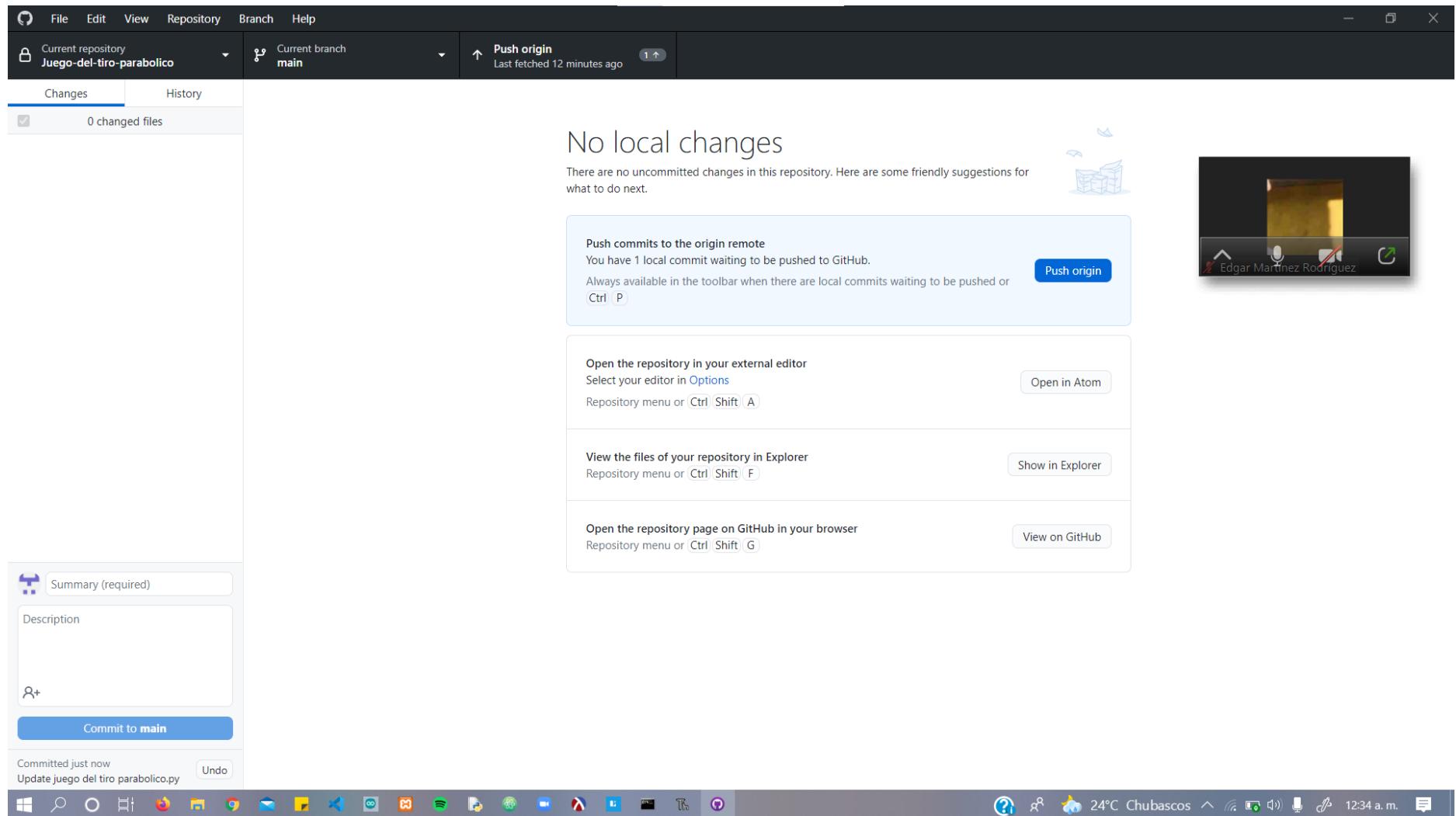
Screenshot of a GitHub Desktop interface showing a pull request for a Python file named "juego del tiro parabolico.py". The changes are displayed in a diff view, highlighting additions and deletions. A video player window is overlaid on the interface, showing a game being played.

The code changes are as follows:

```
diff --git a/juego del tiro parabolico.py b/juego del tiro parabolico.py
--- a/juego del tiro parabolico.py
+++ b/juego del tiro parabolico.py
@@ -56,10 +56,10 @@ def move():
    targets.append(target)
    for target in targets:
        target.x -= 0.5
-        target.x -= 0.75
+        target.x -= 0.75
        if inside(ball):
-            speed.y -= 0.35
+            speed.y -= 0.55
            ball.move(speed)
        dupe = targets.copy()
        @@ -71,11 +71,9 @@ def move():
            draw()
            for target in targets:
                if not inside(target):
                    return
            ontimer(move, 50)
+            ontimer(move, 25)
        setup(420, 420, 370, 0)
@@ @@
```

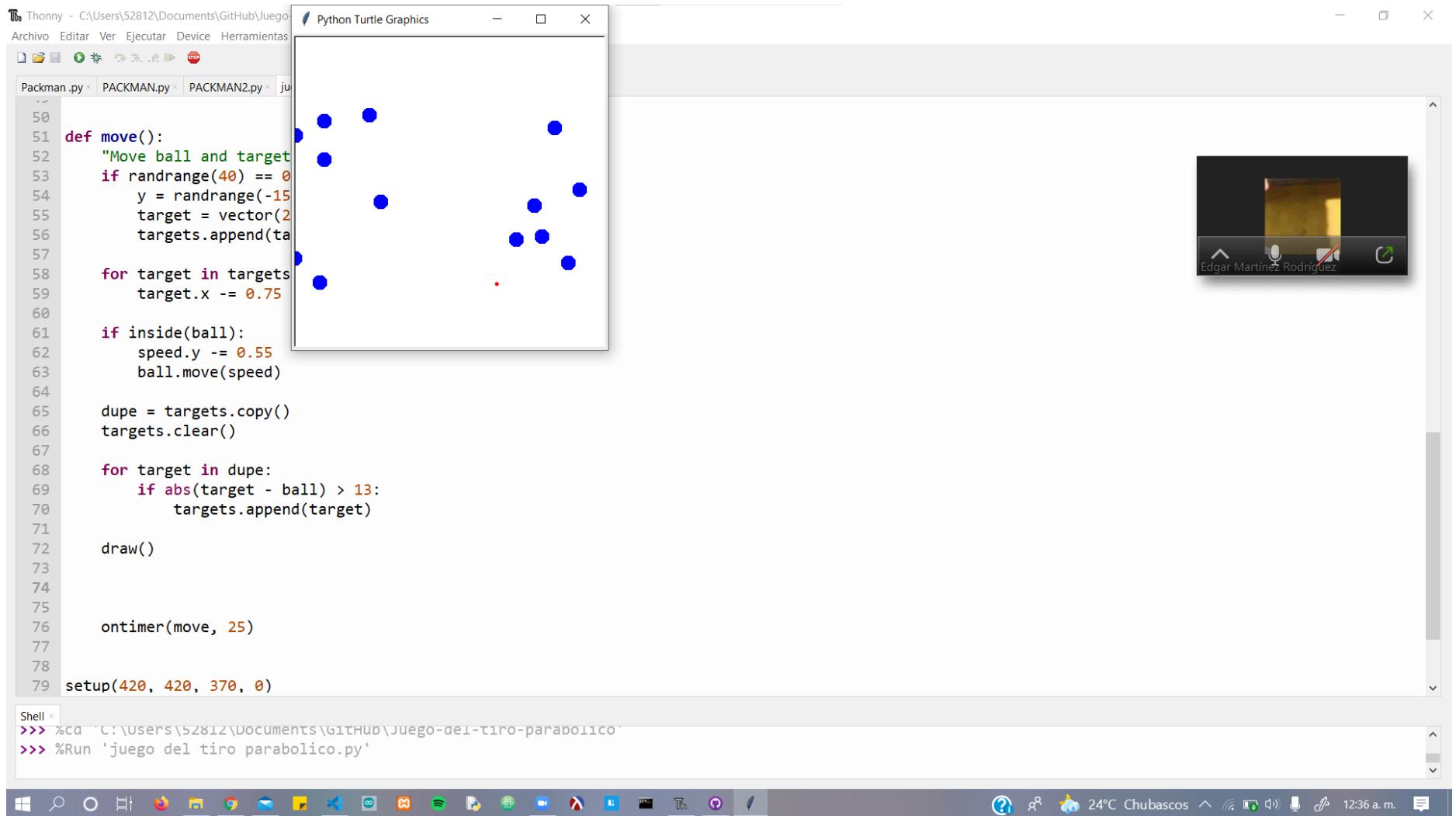
A commit message in the bottom left corner reads: "Cambios para que el proyectil fuera más rápido junto con las bolas y para que el juego nunca finalice".

The GitHub Desktop interface includes a "Commit to main" button at the bottom.



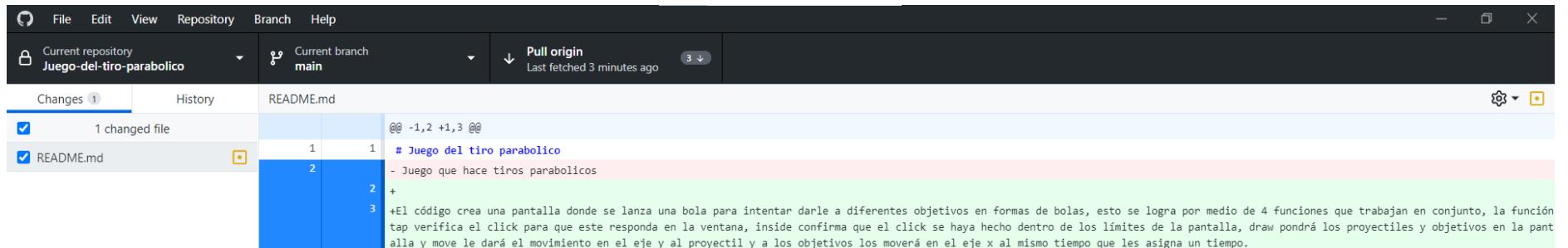
The screenshot shows the GitHub Desktop application interface. At the top, the menu bar includes File, Edit, View, Repository, Branch, and Help. Below the menu is a header bar with sections for 'Current repository' (Juego-del-tiro-parabolico), 'Current branch' (main), and 'Fetch origin' (Last fetched just now). The main area displays a pull request titled 'Update juego del tiro parabolico.py' by Aylin, which has been updated just now. The pull request summary states: 'Cambios para que el proyectil fuera más rápido junto con las bolas y para que el juego nunca finalice'. The code diff shows changes made to the file 'juego del tiro parabolico.py'. The changes include modifying the 'move()' function to increase target speed and adding a draw() function. A video player window is overlaid on the right side of the interface, showing a video thumbnail and controls. The bottom of the screen shows the Windows taskbar with various pinned icons.

```
51 51 def move():
52 52     "Move ball and targets."
53 53     if randrange(40) == 0:
54 54         y = randrange(-150, 150)
55 55         target = vector(200, y)
56 56         targets.append(target)
57 57
58 58     for target in targets:
59 59     -         target.x -= 0.5
59 59     +         target.x -= 0.75
60 60
61 61     if inside(ball):
62 62     -         speed.y -= 0.35
62 62     +         speed.y -= 0.55
63 63     ball.move(speed)
64 64
65 65     dupe = targets.copy()
@@ -71,11 +71,9 @@ def move():
71 71
72 72     draw()
73 73
74 74     -     for target in targets:
75 75     -         if not inside(target):
76 76     -             return
77 77
78 78     -     ontimer(move, 50)
75 75     +
76 76     +     ontimer(move, 25)
79 77
80 78
81 79     setup(420, 420, 370, 0)
@@ @@
```



The screenshot shows a Windows desktop environment with several open windows:

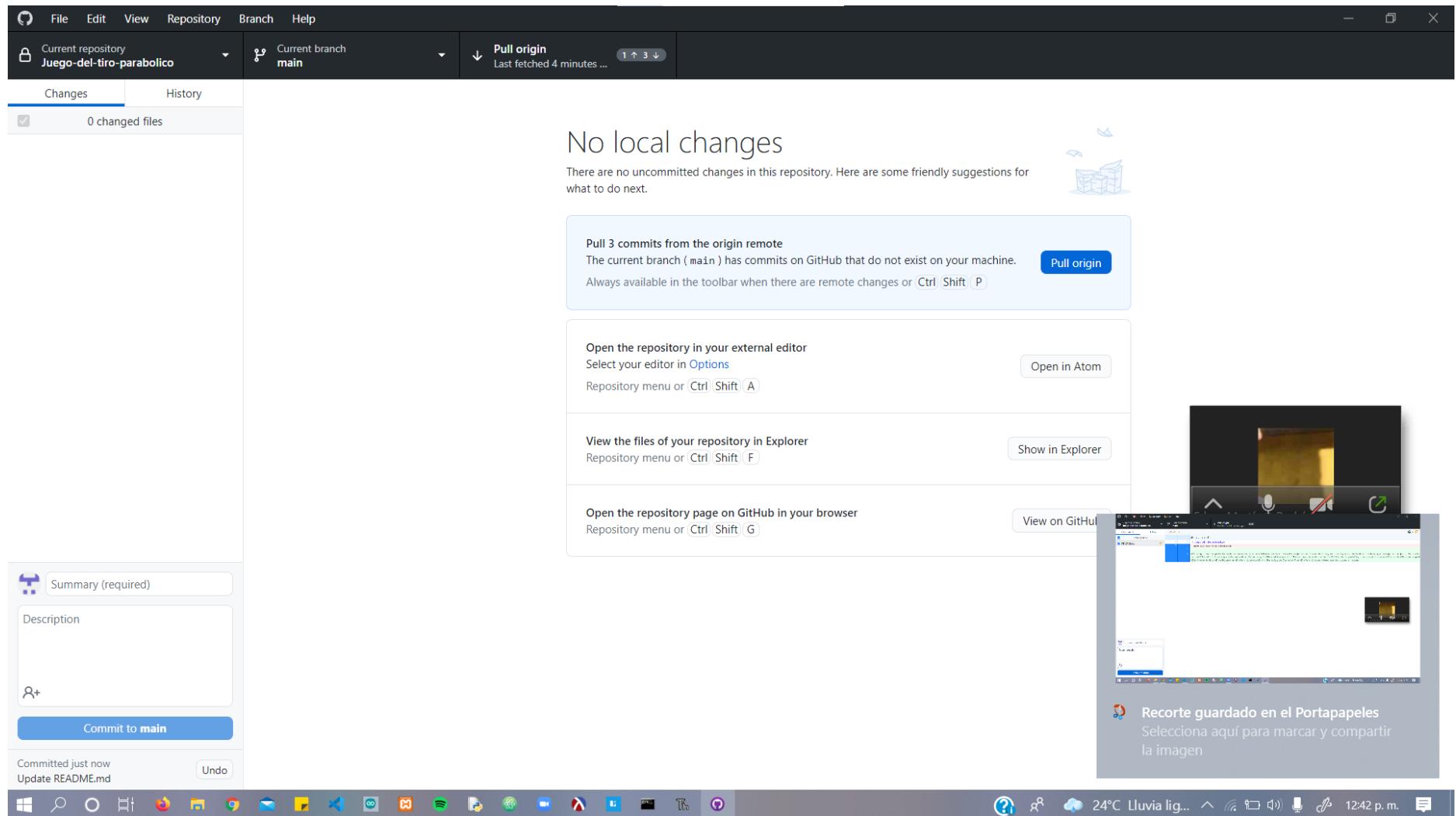
- Thonny - C:\Users\52812\Documents\GitHub\Juego**: An IDE window titled "Python Turtle Graphics". It displays Python code for a game, specifically a version of Pac-Man. The code includes functions for moving the ball and targets, handling collisions, and drawing the game. A shell tab at the bottom shows command-line output related to file navigation and execution.
- Python Turtle Graphics**: A game window showing a grid with several blue circular targets and a small red dot representing the ball. The window has a title bar and standard window controls.
- Video Player**: A window showing a video feed of a person's face. The video player interface includes a play/pause button, volume controls, and a progress bar.
- Taskbar**: The Windows taskbar at the bottom of the screen displays various pinned icons and the system tray.



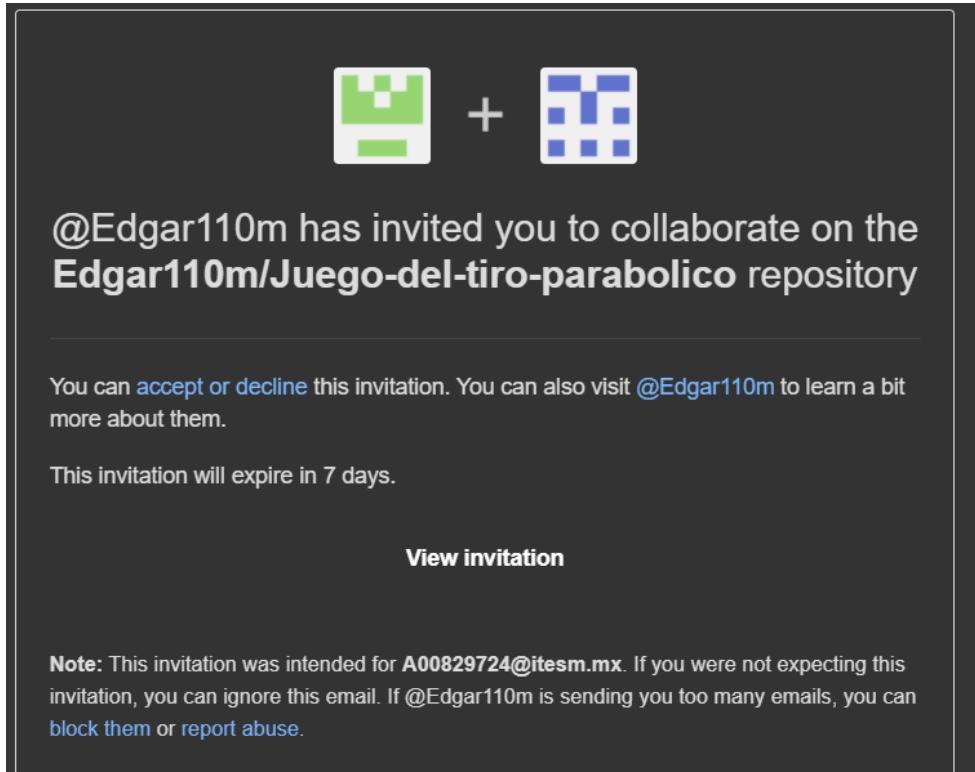
The screenshot shows a GitHub desktop application window. The top bar includes File, Edit, View, Repository, Branch, and Help menus. The repository dropdown shows "Current repository Juego-del-tiro-parabolico" and the branch dropdown shows "Current branch main". A "Pull origin" section indicates it was last fetched 3 minutes ago. The main area displays a diff view for "README.md". The left sidebar shows "Changes 1" and "History". The diff view shows the following changes:

Line	Change	Text
1	-	@@ -1,2 +1,3 @@
2	+	# Juego del tiro parabolico
3	+	- Juego que hace tiros parabolicos
4	+	+El código crea una pantalla donde se lanza una bola para intentar darle a diferentes objetivos en formas de bolas, esto se logra por medio de 4 funciones que trabajan en conjunto, la función tap verifica el click para que este responda en la ventana, inside confirma que el click se haya hecho dentro de los límites de la pantalla, draw pondrá los proyectiles y objetivos en la pantalla y move le dará el movimiento en el eje y al proyectil y a los objetivos los moverá en el eje x al mismo tiempo que les asigna un tiempo.

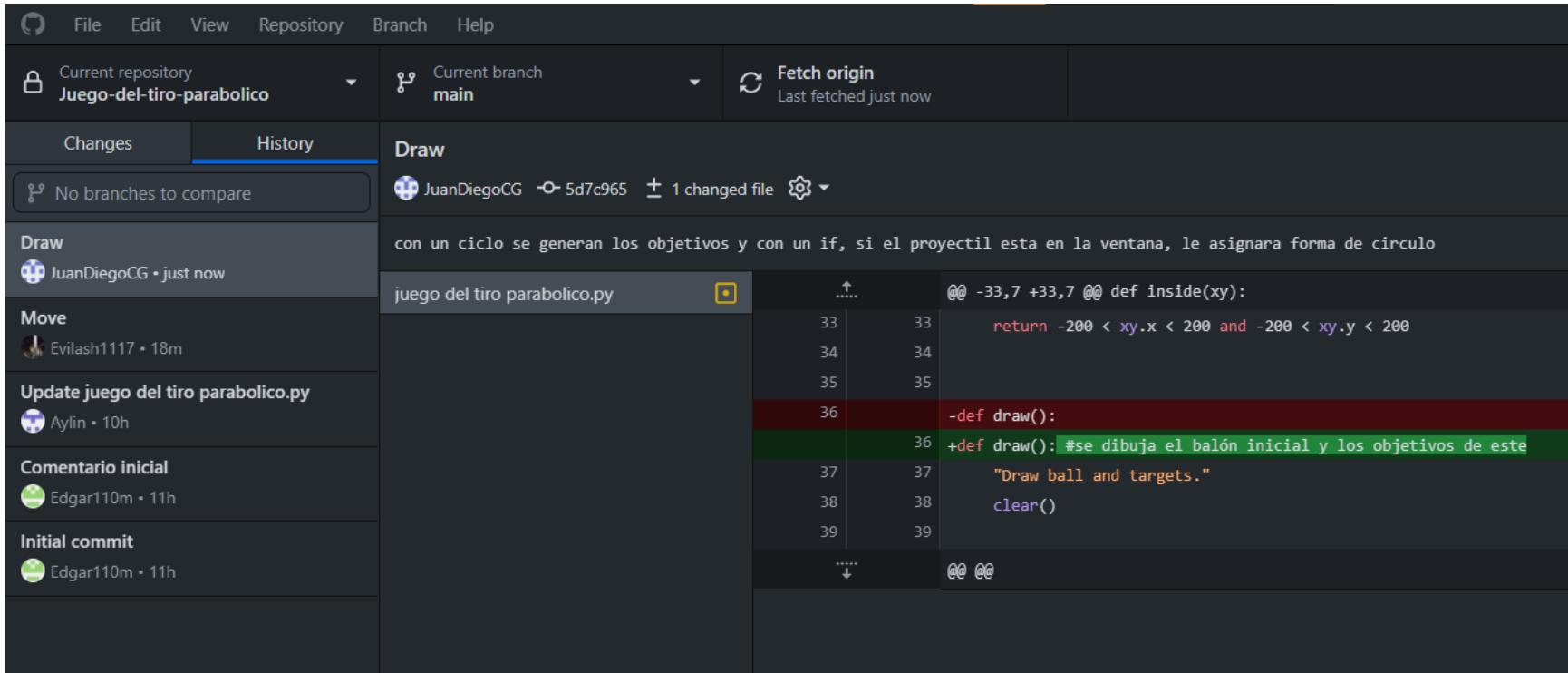
At the bottom left, there is a commit dialog with "Update README.md", "Documentación", and a "Commit to main" button. The system tray at the bottom right shows various icons including a weather forecast for 24°C Lluvia lig., a battery level, and the time 12:42 p.m.



Juan Diego Cruz-Gomar Falla



The image shows a screenshot of an email invitation from GitHub. At the top, there are two icons: a green one with a white checkered pattern and a blue one with a white grid pattern, separated by a plus sign. Below the icons, the text reads: "@Edgar110m has invited you to collaborate on the Edgar110m/Juego-del-tiro-parabolico repository". A horizontal line follows. Below the line, the text says: "You can [accept or decline](#) this invitation. You can also visit [@Edgar110m](#) to learn a bit more about them." Another line follows. Then it says: "This invitation will expire in 7 days." Below that is a blue button labeled "View invitation". At the bottom, a note in bold says: "Note: This invitation was intended for A00829724@itesm.mx. If you were not expecting this invitation, you can ignore this email. If @Edgar110m is sending you too many emails, you can [block them](#) or [report abuse](#)."



Current repository: Juego-del-tiro-parabolico | Current branch: main | Fetch origin: Last fetched just now

Changes **History**

No branches to compare

Draw (JuanDiegoCG · 5d7c965 · 1 changed file)

con un ciclo se generan los objetivos y con un if, si el proyectil esta en la ventana, le asignara forma de circulo

juego del tiro parabolico.py

Line	Line	Code
33	33	@@ -33,7 +33,7 @@ def inside(xy):
34	34	return -200 < xy.x < 200 and -200 < xy.y < 200
35	35	
36	36	-def draw():
37	37	+def draw(): #se dibuja el balón inicial y los objetivos de este
38	38	"Draw ball and targets."
39	39	clear()

... @@

Conclusión

Mediante el análisis de los datos procesados detalladamente se puede concluir que el código nos permite comprender múltiples factores que están involucrados con el proceso en el cual se realiza el juego y todos los aspectos necesarios para que el juego funcione de manera correcta analizando las secciones del código que controlan los parámetros de velocidad y la geometría del mismo con la intención de efectuar las mejoras y comprender de manera directa la importancia del uso de Github.