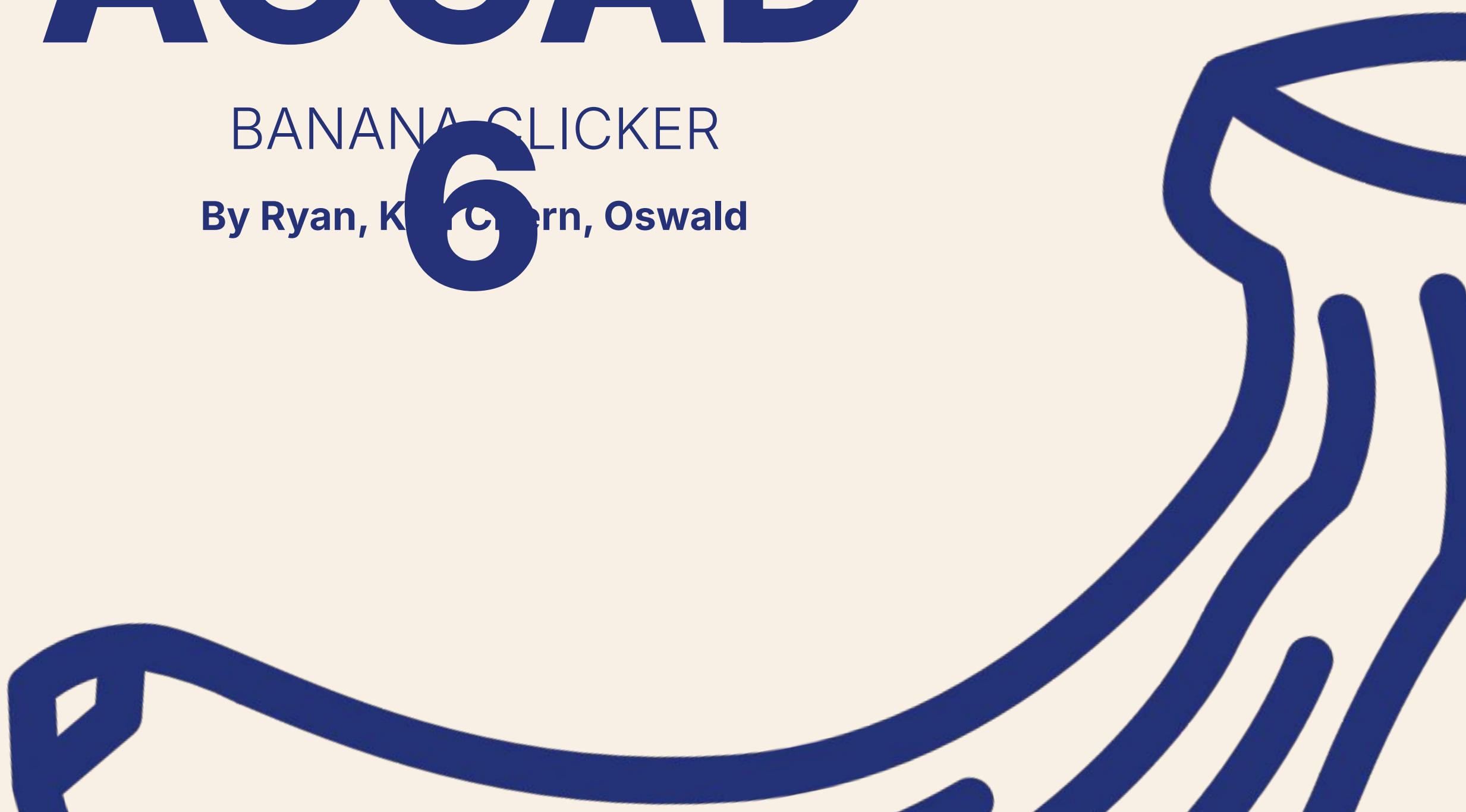




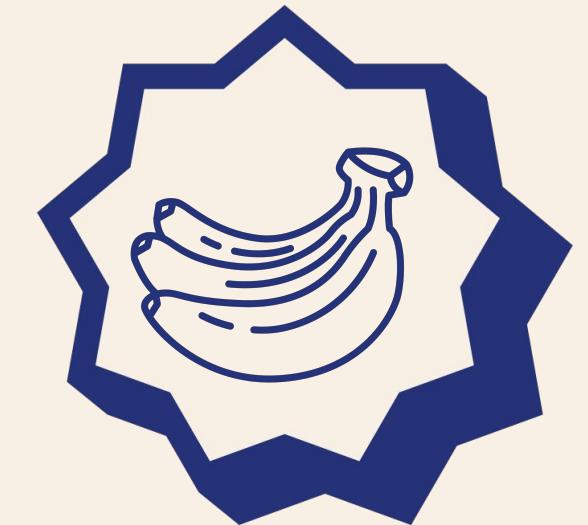
ACCAD

BANANA CLICKER

By Ryan, K₆, Cern, Oswald



Content



Our App

Banana Clicker

App Infrastructure

The app-side and AWS infrastructure

Challenges Faced

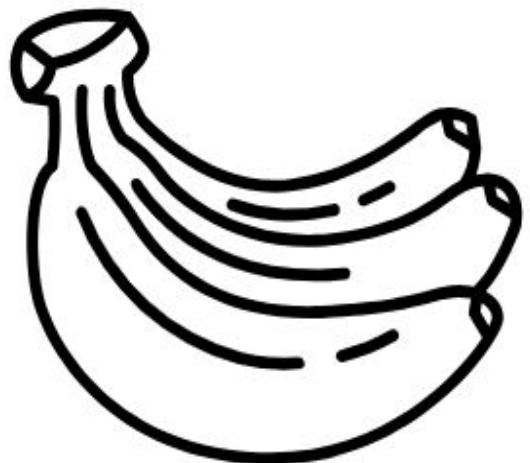
1. Updating DynamoDB table

Our App

Banana Clicker



Login Page

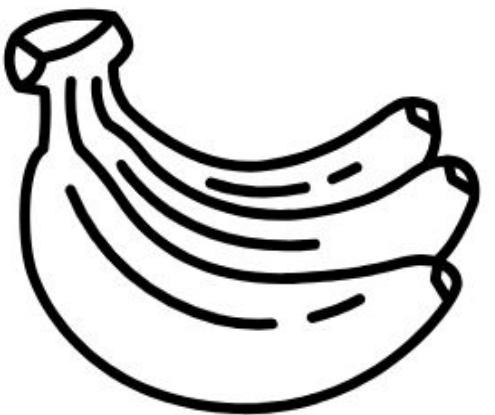


Login

App Page

Click the Bananas for
Bananas
potassiumchloride



Local Bananas: 8

Cloud Bananas: 8

[Send Bananas](#)

[Delete Account](#)



Testin
g



1. Unit Tests

```
1  from pytest import fixture
2
3  import src.api as api
4
5  @fixture
6  def user():
7      return api.createBanana("test")
8
9  def test_createBanana(user):
10     assert user.username == "test" and user.banana == 0
11
12
13 def test_readBananaFull(user):
14     username = user.username
15     banana = user.banana
16     assert api.readBananaFull(username).username == username and api.readBananaFull(username).banana == banana
17
18
19 def test_readBananaNum(user):
20     username = user.username
21     banana = user.banana
22     assert api.readBananaNum(username) == banana
23
24
25 def test_addBanana(user):
26     username = user.username
27     banana = user.banana
28     api.addBanana(username, banana + 1)
29     assert api.readBananaNum(username) == banana + 1
30
31
32 def test_deleteUser(user):
33     username = user.username
34     api.deleteUser(username)
35     assert api.Banana.username
```

1. Unit Tests

```
.../accad6-project on main [!] via pyenv (.venv) using 88% RAM
14:19 0 > pytest -svv
===== test session starts =====
platform linux -- Python 3.11.2, pytest-8.3.4, pluggy-1.5.0 -- /home/[REDACTED]/accad6-project/.venv/bin/python3
cachedir: .pytest_cache
rootdir: /home/[REDACTED]/accad6-project
configfile: pyproject.toml
collected 5 items

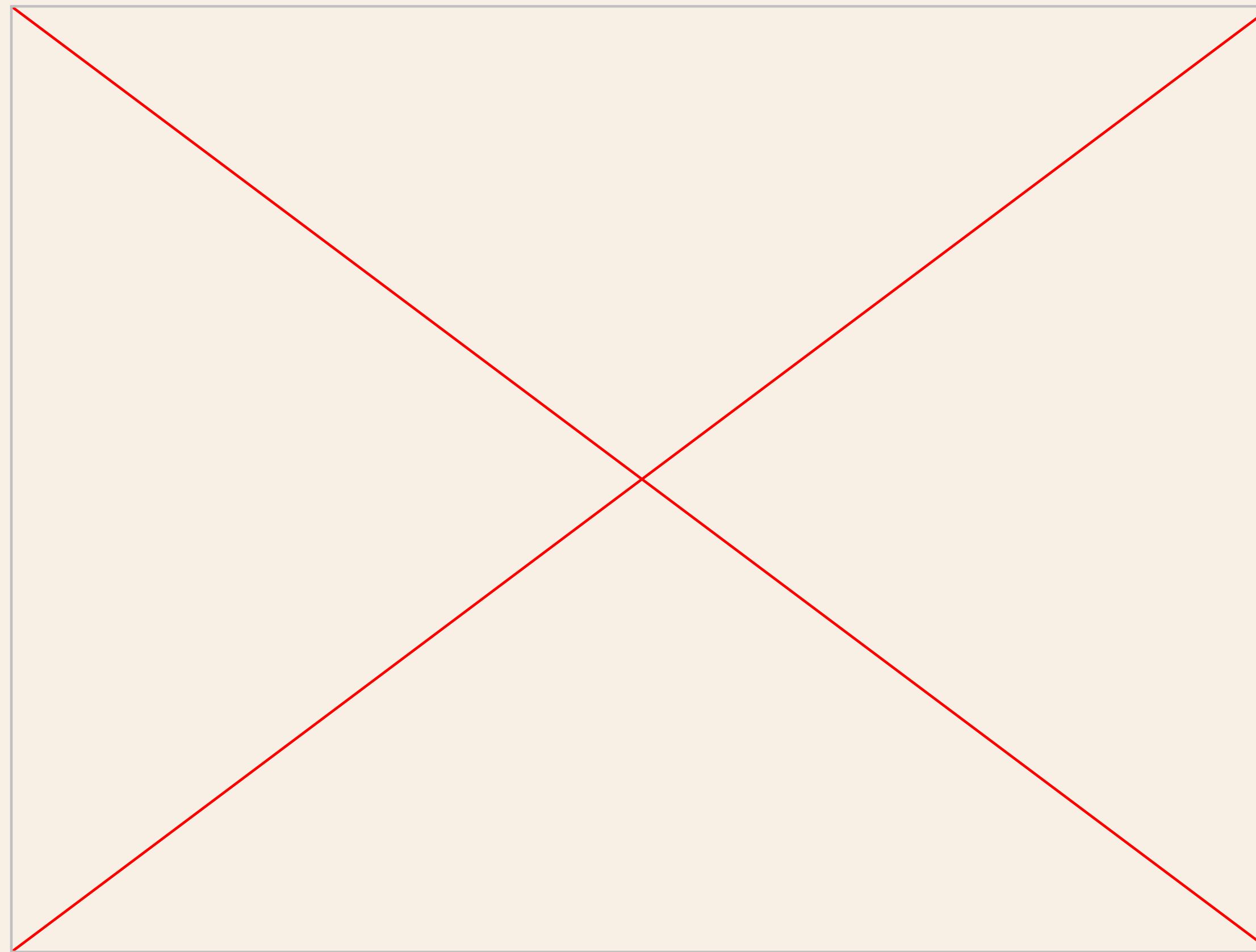
src/test_api.py::test_createBanana PASSED
src/test_api.py::test_readBananaFull PASSED
src/test_api.py::test_readBananaNum PASSED
src/test_api.py::test_addBanana PASSED
src/test_api.py::test_deleteUser PASSED

===== 5 passed in 1.42s =====
```

2. Selenium Testing

```
1 def use_app(driver, url):
2     driver.get(url)
3     assert driver.title == "Login"
4     sleep(2)
5
6     driver.find_element(By.NAME, "username").send_keys("test")
7     sleep(2)
8     driver.find_element(By.NAME, "login").click()
9
10    assert driver.title == "App"
11    assert driver.find_element(By.TAG_NAME, "h2").text == "test"
12
13    sleep(2)
14
15    driver.find_element(By.NAME, "clicker").click()
16    assert (
17        driver.find_element(By.NAME, "local-bananas").text == "Local Bananas: 1 (+1)"
18        and driver.find_element(By.NAME, "cloud-bananas").text == "Cloud Bananas: 0"
19    )
20
21    sleep(2)
22
23    driver.find_element(By.NAME, "deleter").click()
24    assert driver.title == "Login"
```

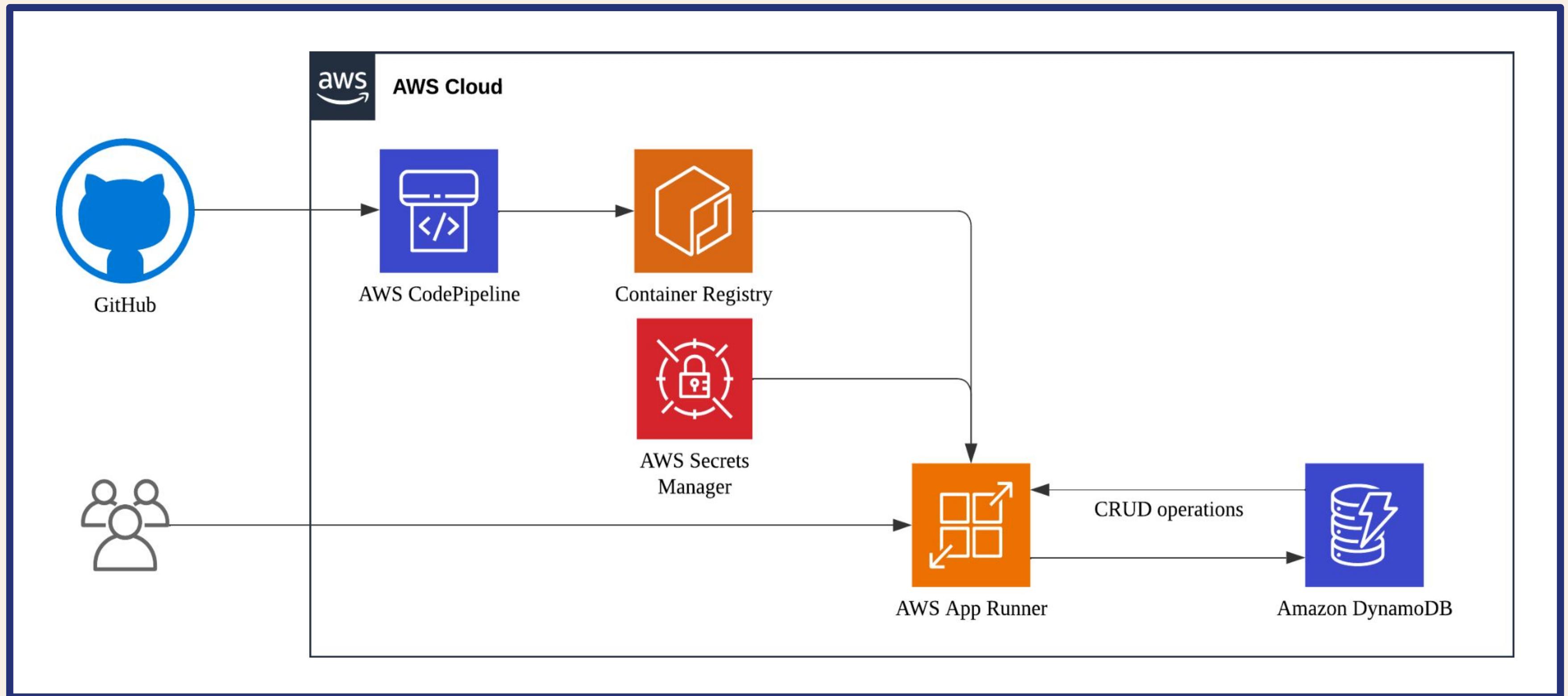
2. Selenium Testing



App Infrastructur e



AWS Infrastructure



Create

When the user enters the game with a unique username, a row is created in the DynamoDB table where the primary key is the username and their number of bananas is 0.

Read

When the user enters the game with an existing username, a query is sent to DynamoDB to find the number of bananas under that account.

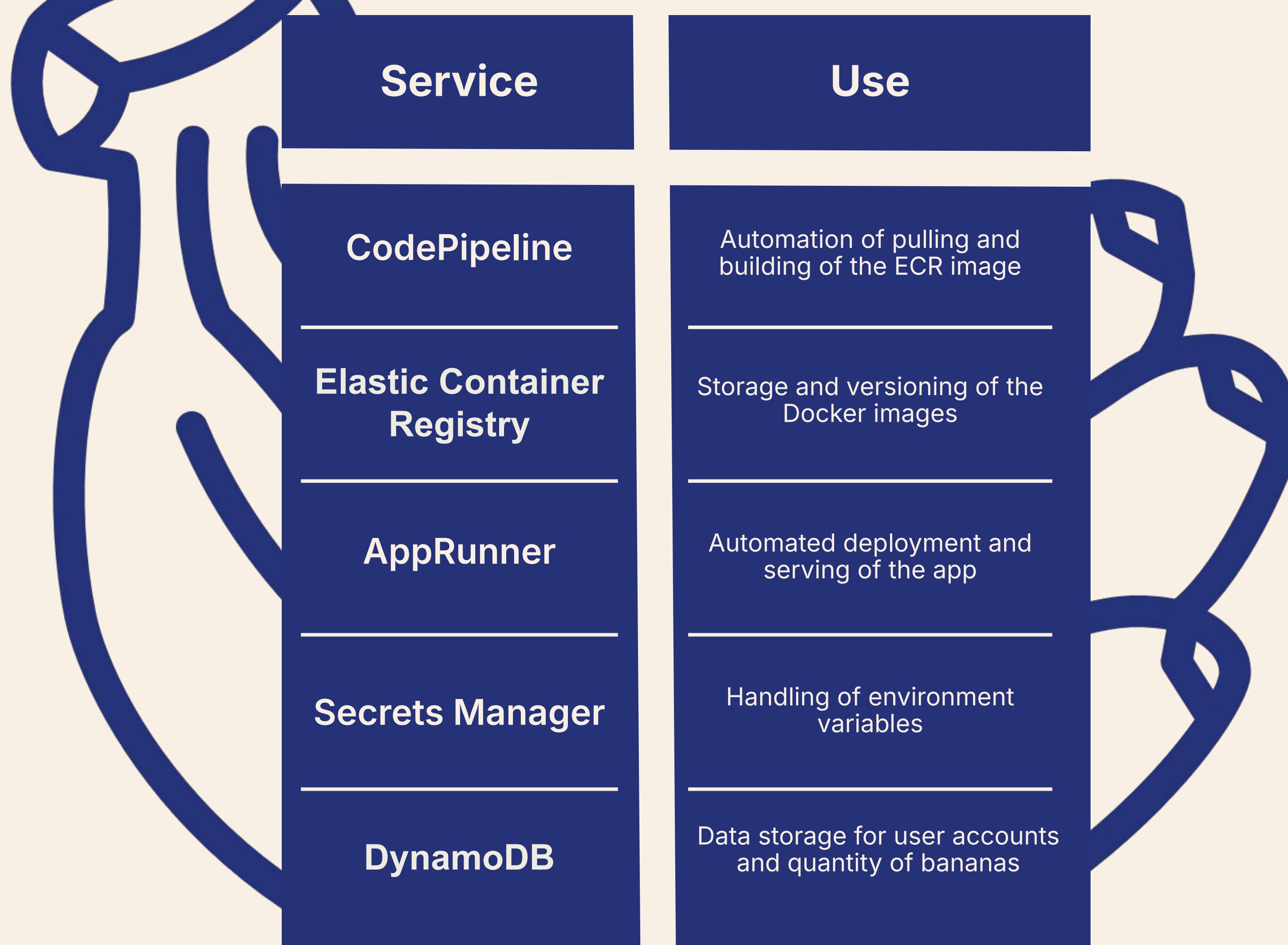


Update

When the user clicks the “Send Bananas” button, a query is sent to DynamoDB to update the number of bananas an account has.

Delete

When the user clicks the “Delete Account” button, a query is sent to DynamoDB to remove the row with the user’s username. The user is subsequently redirected back to login page.



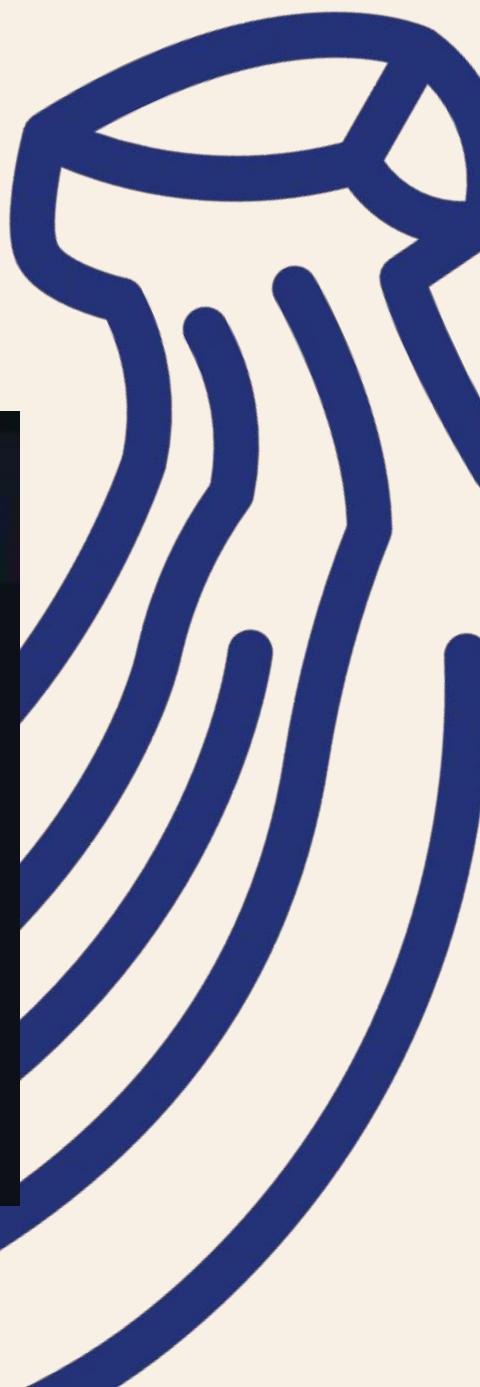
Challenges



1. Updating the DynamoDB values

```
def addBanana(user: str, bananas: int) -> None:  
    userItem = readBananaFull(user)  
    userItem.update(actions=[Banana.banana.set(bananas)])  
    return userItem
```

```
@client.route("/app", methods=["GET", "POST"])  
def app():  
    username = session.get("username")  
    if request.method == "POST":  
        session["bananas"] += 1
```



2. Testing Constantly Fails

```
===== ERRORS =====
ImportError while importing test module 'C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6\tests\unit\asserts\test_api.py'.
Hint: make sure your test modules/packages have valid Python names.
Traceback:
C:\Users\Oswald\AppData\Local\Programs\Python\Python313\Lib\importlib\_init_.py:88: in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
tests\unit\asserts\test_api.py:10: in <module>
    api = importlib.import_module("src.api")
C:\Users\Oswald\AppData\Local\Programs\Python\Python313\Lib\importlib\_init_.py:88: in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
E   ModuleNotFoundError: No module named 'src'

short test summary info =====
ERROR tests/unit/asserts/test_api.py
==== Interrupted: 1 error during collection =====
(.venv) PS C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6> pytest
platform win32 -- Python 3.13.0, pytest-8.3.4, pluggy-1.5.0
rootdir: C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6-personal\accad6
configfile: pyproject.toml
collected 0 items / 1 error

===== ERRORS =====
ImportError while importing test module 'C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6-personal\accad6\tests\unit\asserts\test_api.py'.
Hint: make sure your test modules/packages have valid Python names.
Traceback:
C:\Users\Oswald\AppData\Local\Programs\Python\Python313\Lib\importlib\_init_.py:88: in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
tests\unit\asserts\test_api.py:11: in <module>
    api = importlib.import_module("src.api")
C:\Users\Oswald\AppData\Local\Programs\Python\Python313\Lib\importlib\_init_.py:88: in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
E   ModuleNotFoundError: No module named 'src'

Captured stdout =====
C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6-personal\accad6> short test summary info =====
ERROR tests/unit/asserts/test_api.py
==== Interrupted: 1 error during collection =====
(.venv) PS C:\Users\Oswald\Desktop\Programmings\docker\accad6-assessment\accad6-personal\accad6>
```

```
197 #9 [5/6] COPY . .
198 #9 DONE 0.ls
199
200 #10 [6/6] RUN pytest
201 #10 0.550 ===== test session starts =====
202 #10 0.550 platform: linux -- Python 3.10.16, pytest-8.3.4, pluggy-1.5.0
203 #10 0.550 rootdir: ./app
204 #10 0.550 collected 0 items / 1 error
205 #10 0.550 =====
206 #10 0.550 ===== ERRORS =====
207 #10 0.550 ERROR collecting tests/unit/asserts/test_api.py
208 #10 0.550 ImportError while importing test module '/app/tests/unit/asserts/test_api.py'.
209 #10 0.550 Hint: make sure your test modules/packages have valid Python names.
210 #10 0.550 Traceback:
211 #10 0.550   /usr/local/lib/python3.10/importlib/_init_.py:126: in import_module
212 #10 0.550     return _bootstrap._gcd_import(name[level:], package, level)
213 #10 0.550   tests/unit/asserts/test_api.py:6: in <module>
214 #10 0.550     api = importlib.import_module("src.api")
215 #10 0.550   /usr/local/lib/python3.10/importlib/_init_.py:126: in import_module
216 #10 0.550     return _bootstrap._gcd_import(name[level:], package, level)
217 #10 0.550 E   ModuleNotFoundError: No module named 'src'
218 #10 0.550 ===== short test summary info =====
219 #10 0.550 ERROR tests/unit/asserts/test_api.py
220 #10 0.550 ===== Interrupted: 1 error during collection =====
221 #10 0.550 1 error in 0.10s =====
222 #10 ERROR: process '/bin/sh -c pytest' did not complete successfully: exit code: 2
223 -----
224 > [6/6] RUN pytest:
225 0.558   return _bootstrap._gcd_import(name[level:], package, level)
226 0.558   tests/unit/asserts/test_api.py:6: in <module>
227 0.558     api = importlib.import_module("src.api")
228 0.558   /usr/local/lib/python3.10/importlib/_init_.py:126: in import_module
229 0.558     return _bootstrap._gcd_import(name[level:], package, level)
230 0.558 E   ModuleNotFoundError: No module named 'src'
231 0.558 ===== short test summary info =====
232 0.558 ERROR tests/unit/asserts/test_api.py
233 0.558 ===== Interrupted: 1 error during collection =====
234 0.558 1 error in 0.10s =====
235 -----
236 Dockerfile:17
237 -----
238 15 |
239 16 |   # Running pytest
240 17 |   >>> RUN pytest
241 18 |
242 19 |   # Expose port
243 -----
244 ERROR: failed to solve: process "/bin/sh -c pytest" did not complete successfully: exit code: 2
245
246 [Container] 2025/01/16 00:58:26.235271 Command did not exit successfully docker build -t accad6 . exit status 1
247 [Container] 2025/01/16 00:58:26.242585 Phase complete: BUILD State: FAILED
248 [Container] 2025/01/16 00:58:26.242602 Phase context status code: COMMAND_EXECUTION_ERROR Message: Error while executing command: docker build -t accad6 .. Reason: exit status 1
```

arn:aws:s3:::codepipeline	e-ap-	southeast-1-18328556	codepipeline/accad6	41 seconds	2 hours ago
accad6:906ba9bb-5725	-41c2-aad5-107e5e282b98	Succeeded	36		
accad6:fccb5a99-3f0d-	4b51-a925-5f2078133b0b	Failed	35		
accad6:24a639eb-	bc83-4e0f-b3af-87ff3661e0d8	Failed	34		
accad6:284f880a-64fa-	4ea9-83af-18472847d6d2	Failed	33		
accad6:94480428-49a0	-43fe-a6c7-f82fd93d04b5	Failed	32		
accad6:f6634cc9-8124-	4860-9d80-260e2af49167	Failed	31		
accad6:85aa028d-1de7	-4a56-bc61-9ab3a0ffbdb2	Failed	30		



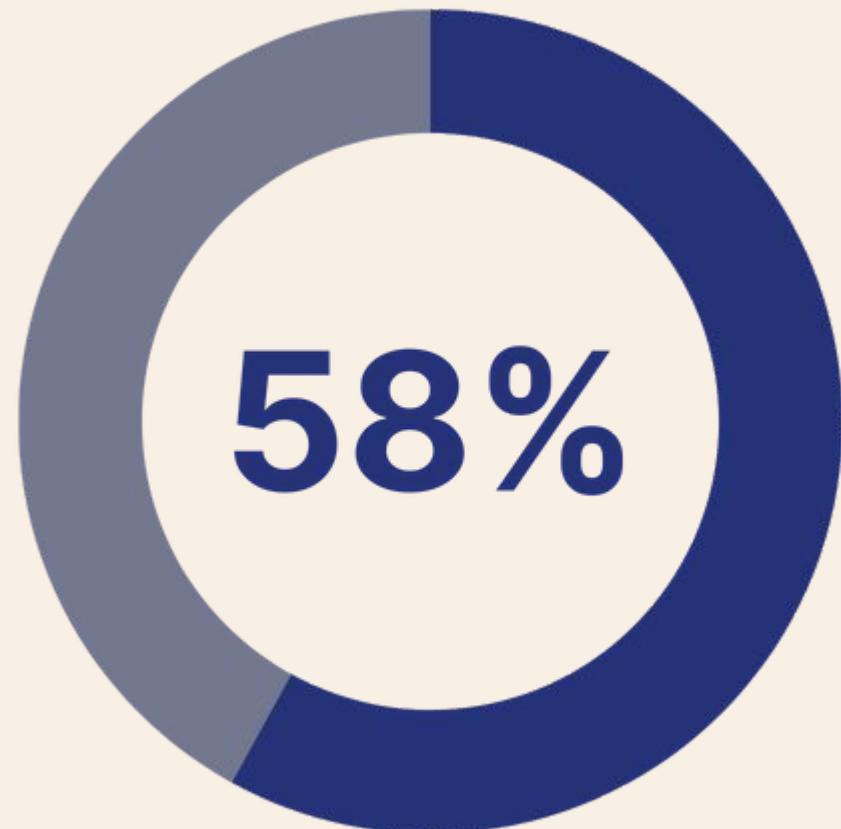
3. API Limit

```
48 #2 [internal] load metadata for docker.io/library/python:3.10-slim
49 #2 ERROR: failed to copy: httpReadSeeker: failed open: unexpected status code https://registry-1.docker.io/v2/library/python/
manifests/sha256:a636f5aafba3654ac4d04d7c234a75b77fa26646fe0dafe4654b731bc413b02f: 429 Too Many Requests - Server message:
toomanyrequests: You have reached your pull rate limit. You may increase the limit by authenticating and upgrading: https://
www.docker.com/increase-rate-limit
50 -----
51 > [internal] load metadata for docker.io/library/python:3.10-slim:
52 -----
53 Dockerfile:2
54 -----
55 1 |     # Use an official Python runtime as a parent image
56 2 | >>> FROM python:3.10-slim
57 3 |
58 4 |     # Set working directory
59 -----
60 ERROR: failed to solve: python:3.10-slim: failed to resolve source metadata for docker.io/library/python:3.10-slim: failed to
copy: httpReadSeeker: failed open: unexpected status code https://registry-1.docker.io/v2/library/python/manifests/
sha256:a636f5aafba3654ac4d04d7c234a75b77fa26646fe0dafe4654b731bc413b02f: 429 Too Many Requests - Server message:
toomanyrequests: You have reached your pull rate limit. You may increase the limit by authenticating and upgrading: https://
www.docker.com/increase-rate-limit
```



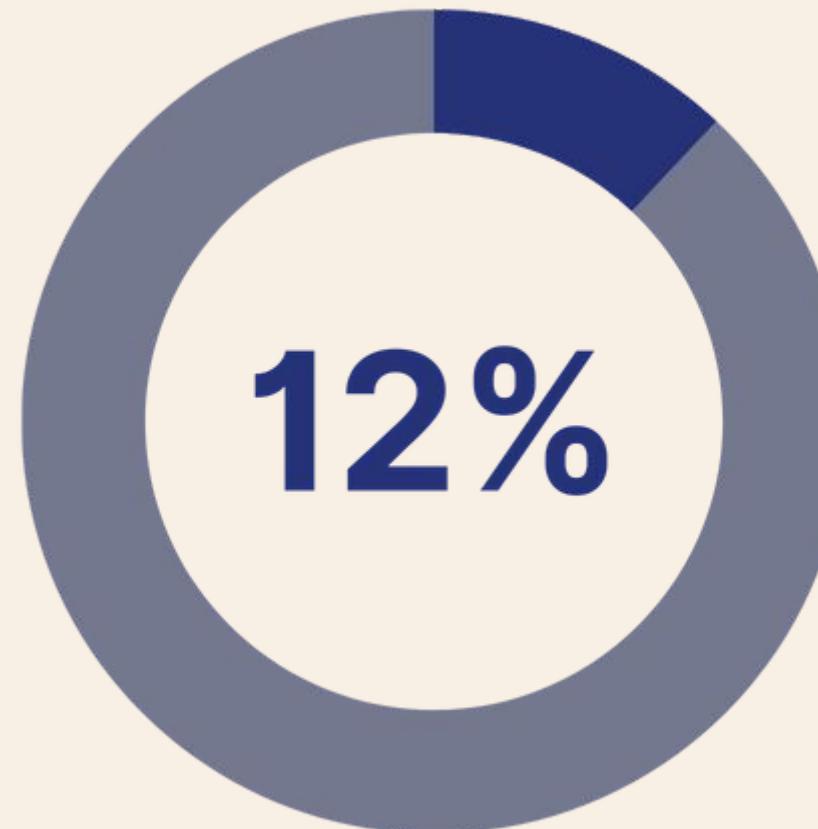
Thank You!

STATISTICS



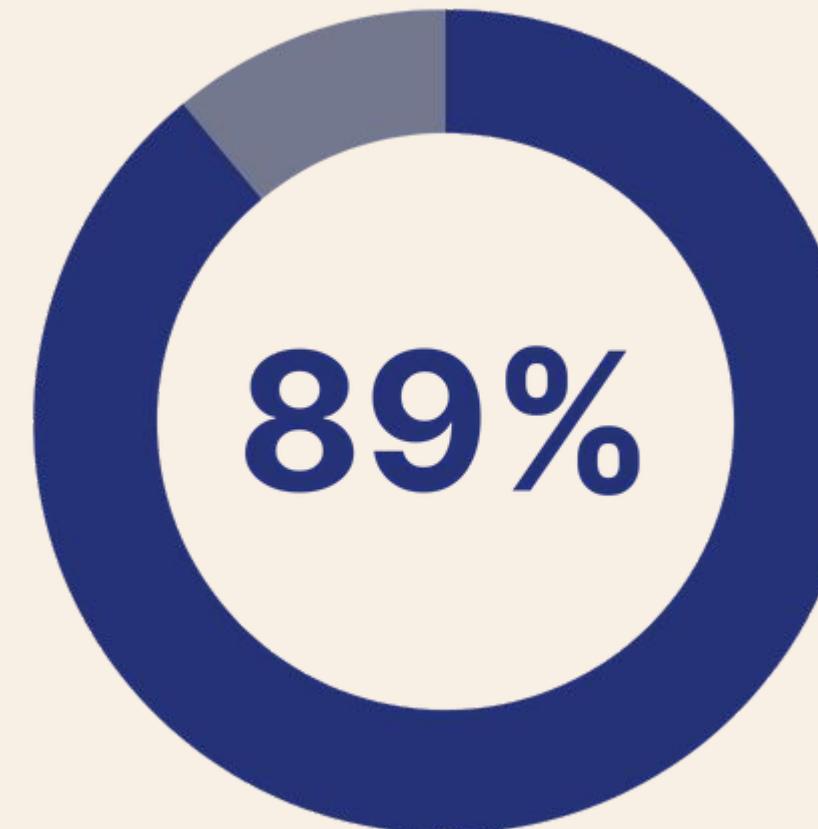
MARKET SHARE

Elaborate on your topic here.



STOCK INCREASE

Elaborate on your topic here.



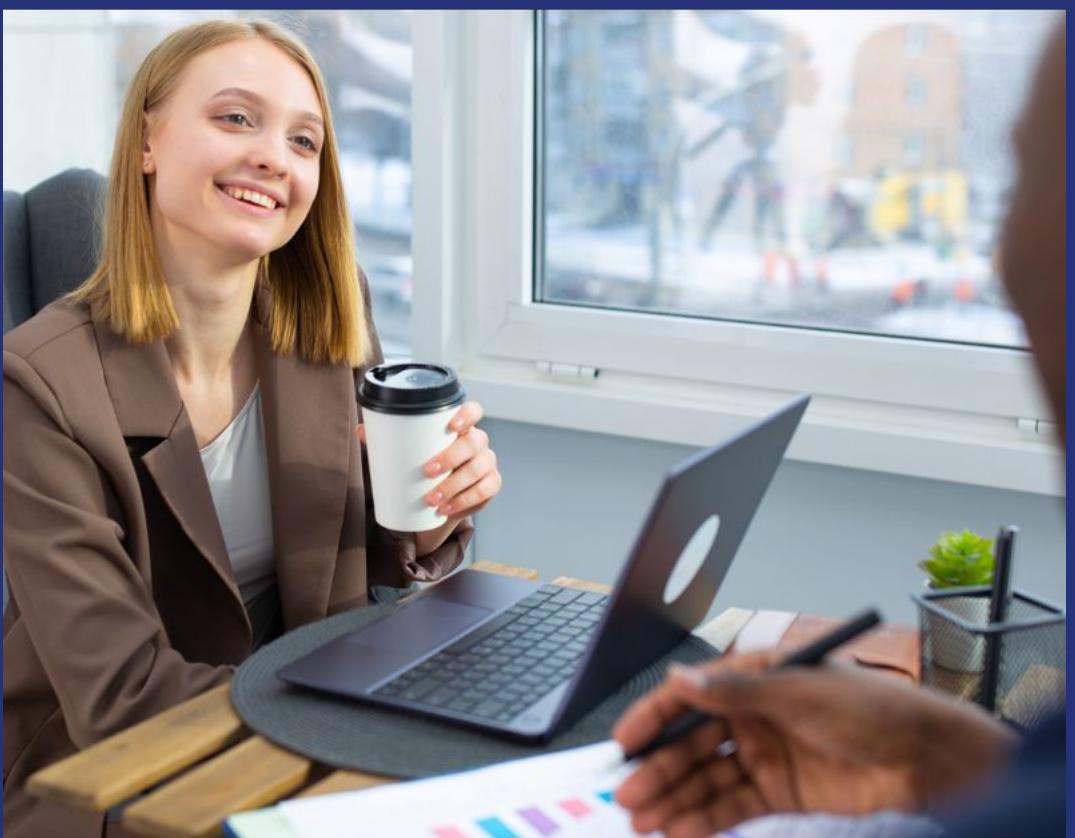
SALES

Elaborate on your topic here.

\$8,962,478

IMPORTANT STATISTIC

Elaborate on your statistic here.



ACTION ITEM	PLAN	ACTUAL	RESULT
ACTION ITEM	Write a detailed action plan here. Give specific goals and milestones that are both achievable and aspirational.	Write a detailed report on the actual performance in relation to the action item given here.	PASSED
ACTION ITEM	Write a detailed action plan here. Give specific goals and milestones that are both achievable and aspirational.	Write a detailed report on the actual performance in relation to the action item given here.	FAILED
ACTION ITEM	Write a detailed action plan here. Give specific goals and milestones that are both achievable and aspirational.	Write a detailed report on the actual performance in relation to the action item given here.	PASSED
ACTION ITEM	Write a detailed action plan here. Give specific goals and milestones that are both achievable and aspirational.	Write a detailed report on the actual performance in relation to the action item given here.	PASSED

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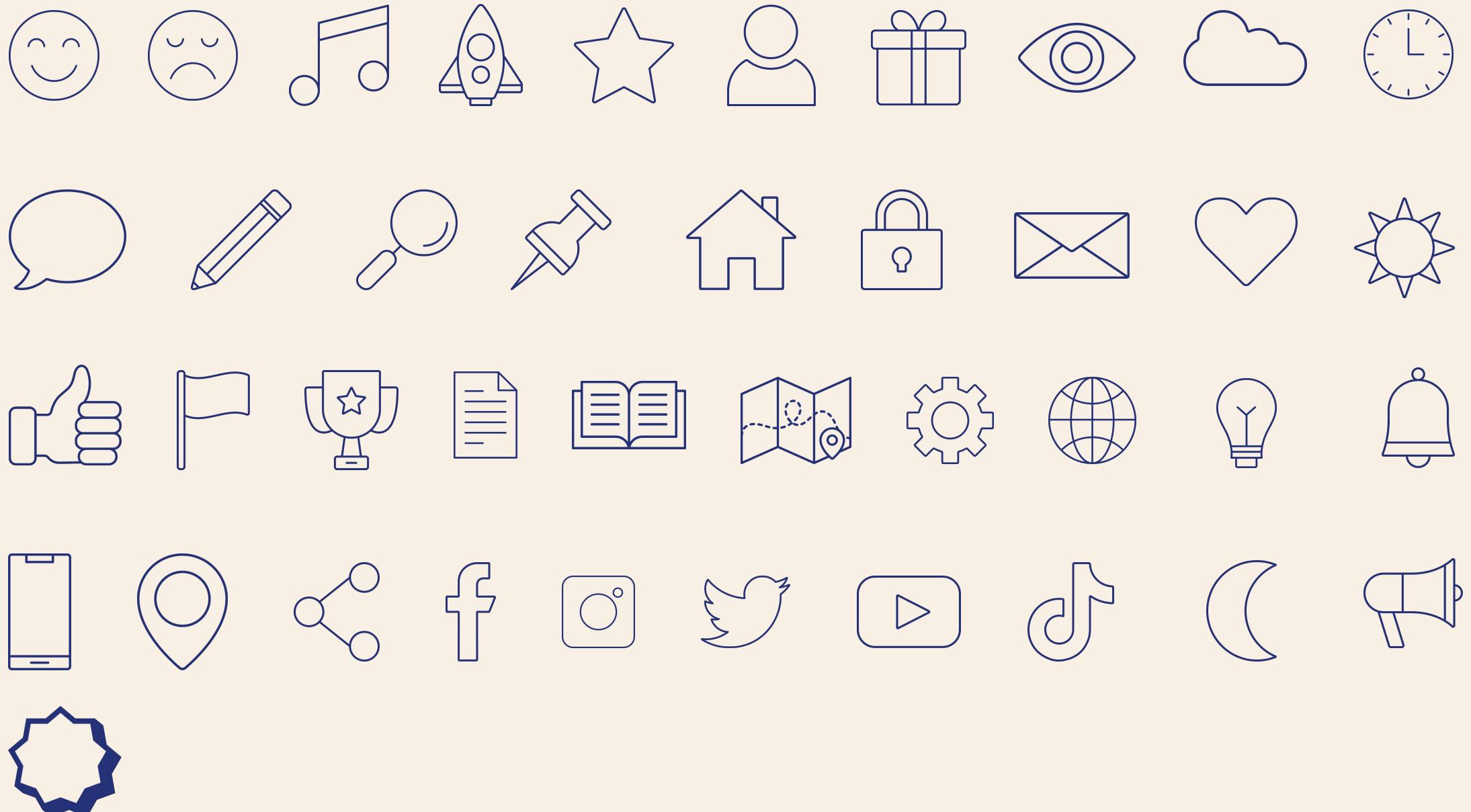
COLORS



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A photograph of three young men of different ethnicities laughing together. One man in the center wears glasses and a green zip-up hoodie, gesturing with his hand towards the camera. The man on the right has a beard and is wearing a denim jacket over a light blue shirt. The man on the left is partially visible, smiling. They are all wearing casual clothing like hoodies and jackets.

A PICTURE IS WORTH A
THOUSAND WORDS

CRUD Operations

\$8M

REVENUE

Elaborate on your topic here.

4M

SALES

Elaborate on your topic here.

64.5%

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