RTF.

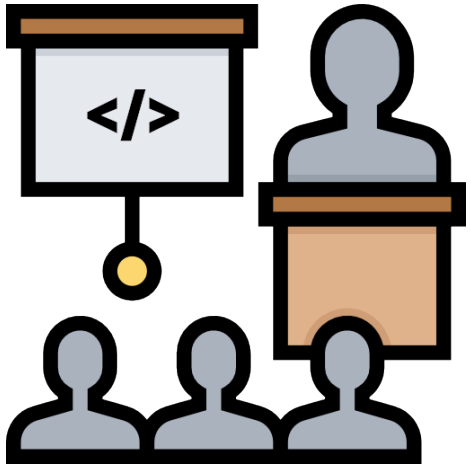
Remediate the Flag

Practical Application Security Training for Developers

Andrea Scaduto

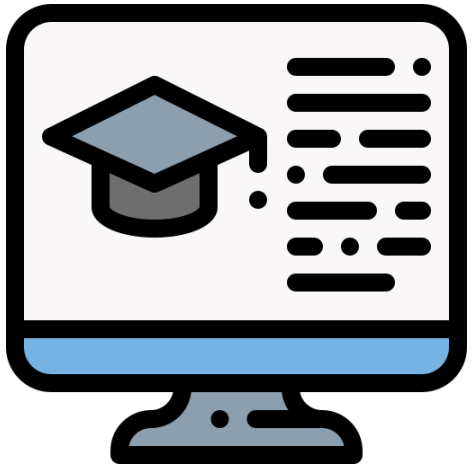
www.remediatetheflag.com

AppSec Training, today.



In Class Training

- ✓ Provides real-world examples
- x Expensive (Cost / Time)
- x Often a one time event



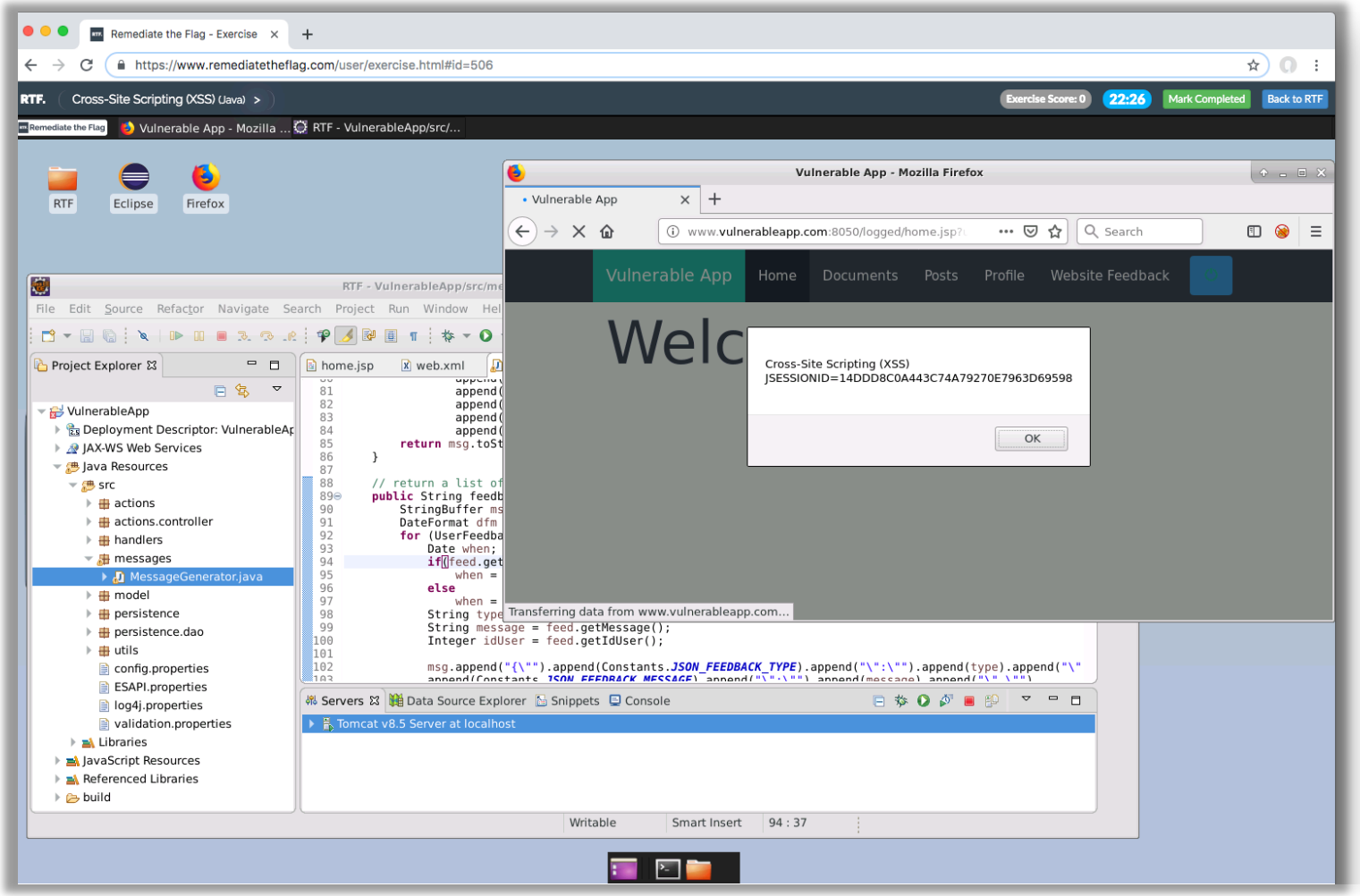
Computer Based Training

- x No hands-on examples
- ✓ Scales well for large companies
- x Difficult to assess competency

RTF.

AppSec Training, **tomorrow**.

- 100% hands-on training
- Identify, exploit and fix security issues.
- Dedicated DEV environment accessed in seconds through a web browser.
- Learn using the same tools used at the workplace.



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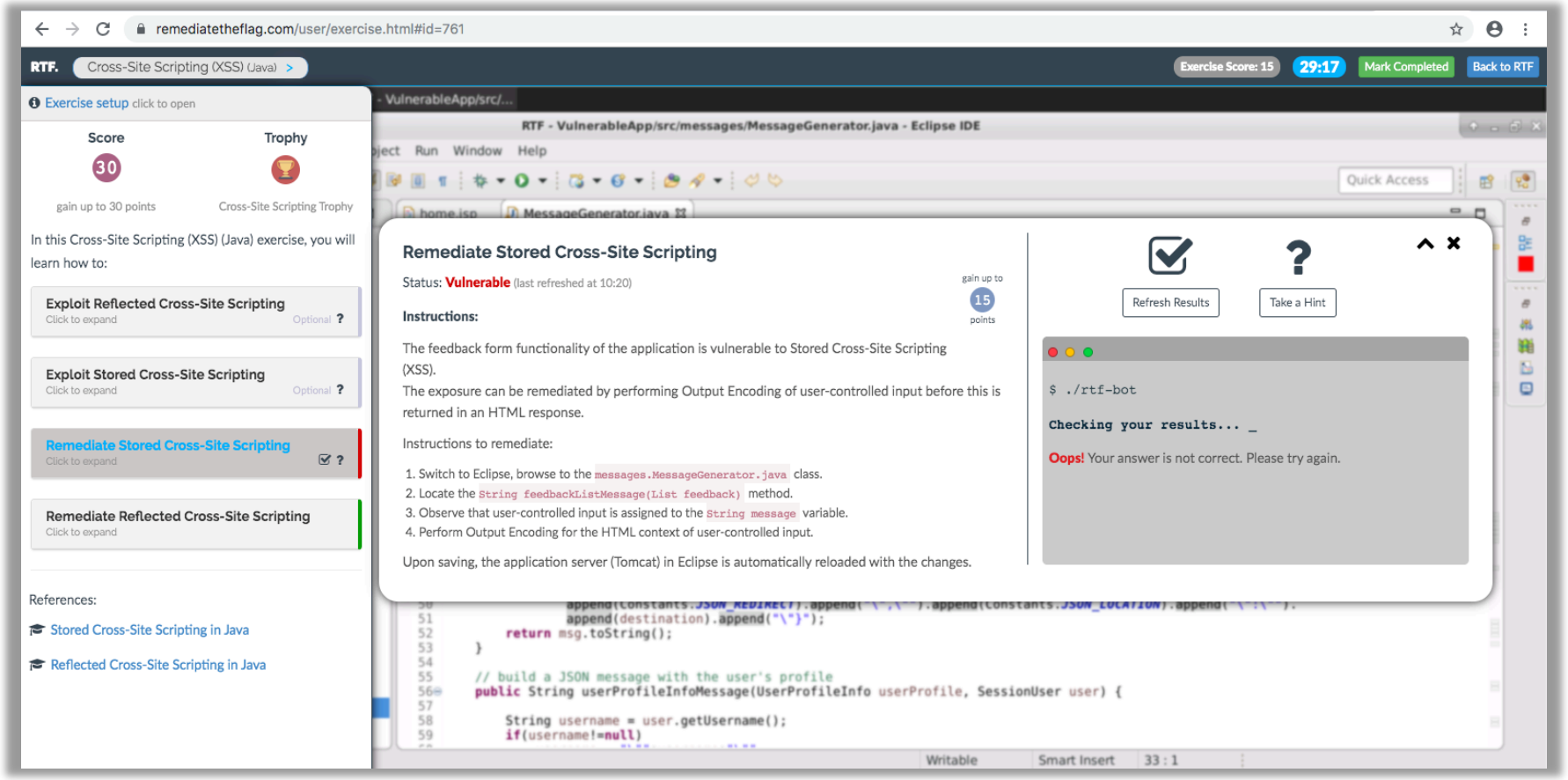
Engaging and Interactive



- Real-time results & Hints
- Automated scoring
- Gain Points & Trophies

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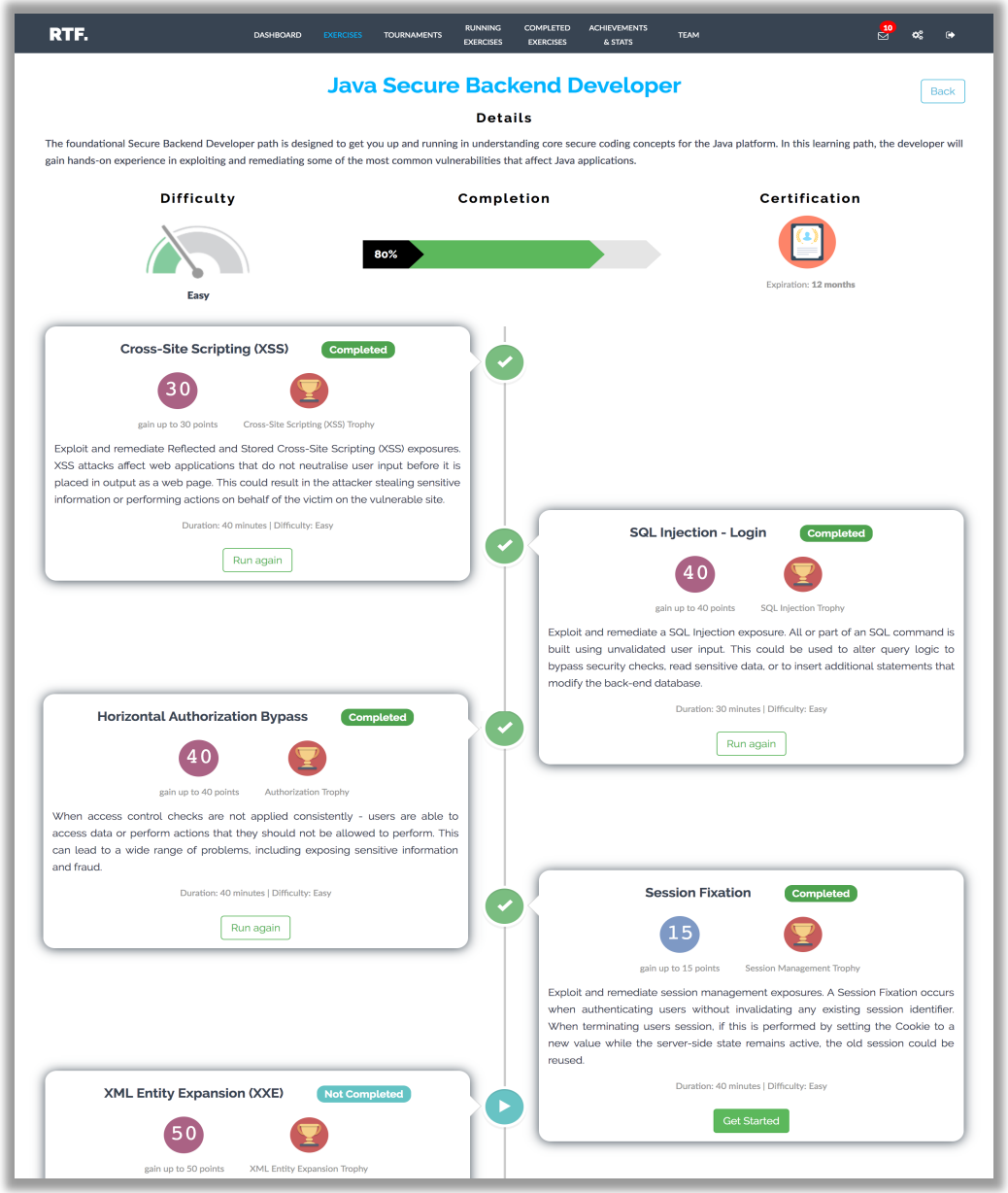
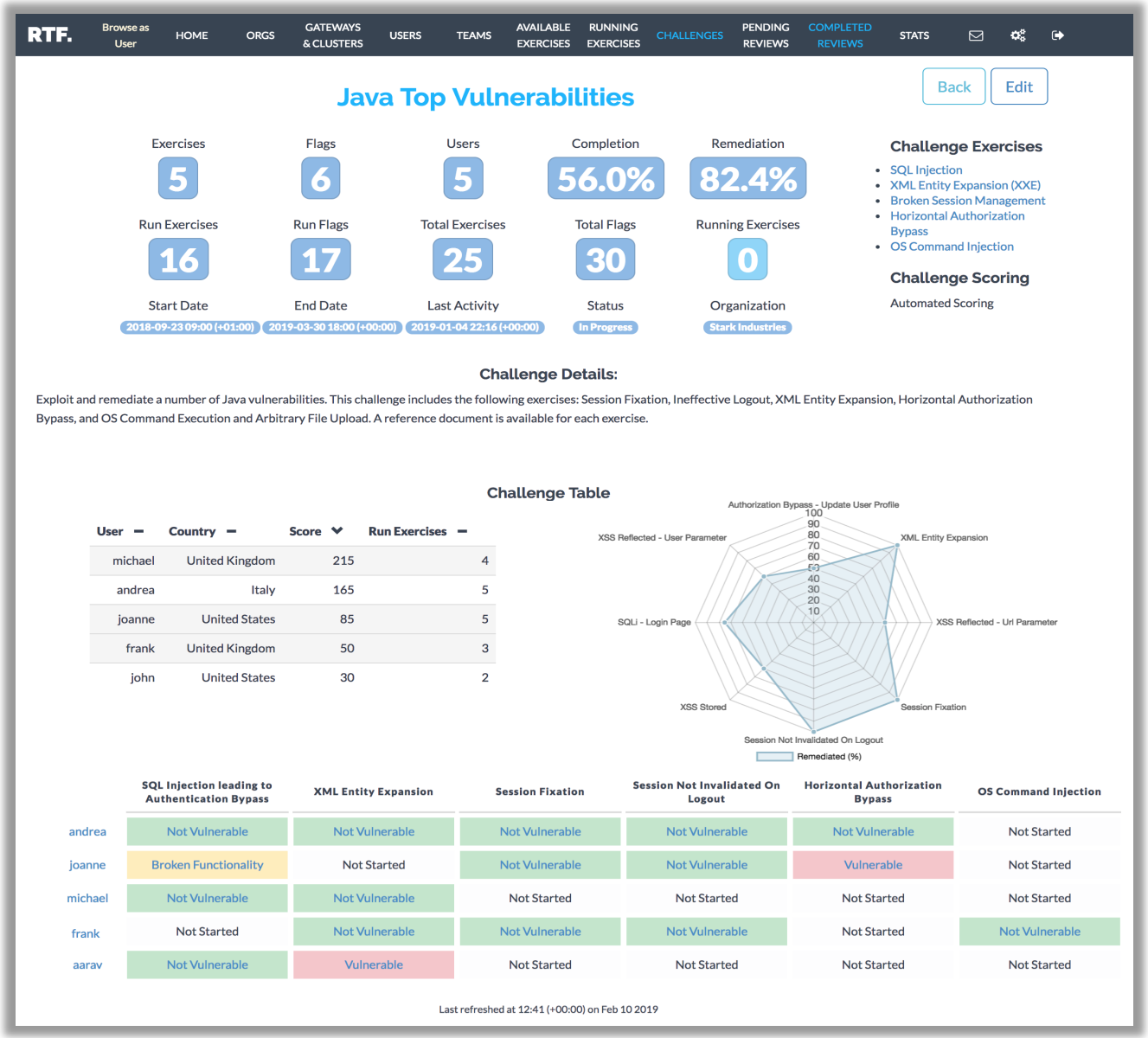
Learning Paths

- Exercises are grouped into logically linked units.
- Learners become expert in a topic in small steps.
- When candidates complete a Learning Path, they receive a RTF certification.
- Certifications expire and they can be renewed by taking refresher exercises.



RTF.



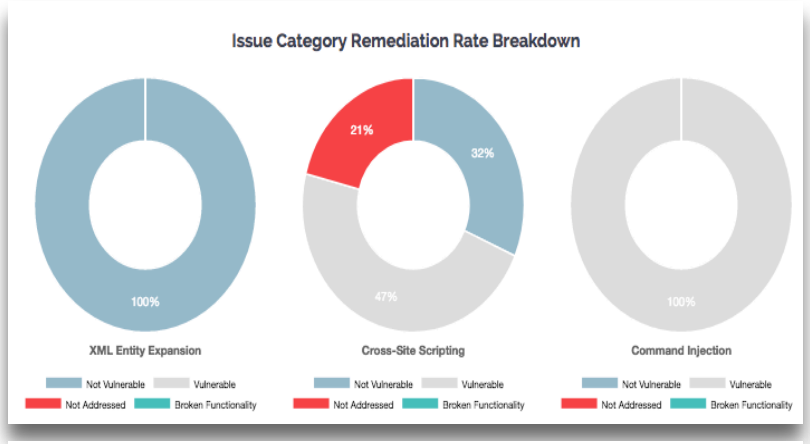
Tournaments

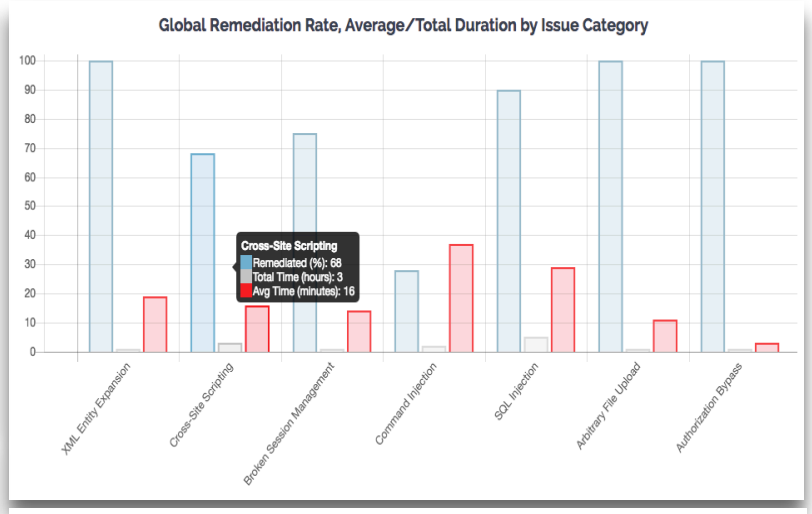
- Run time-boxed challenges.
- Users of the same Organization compete to remediate security issues.
- Engage the whole developer community.

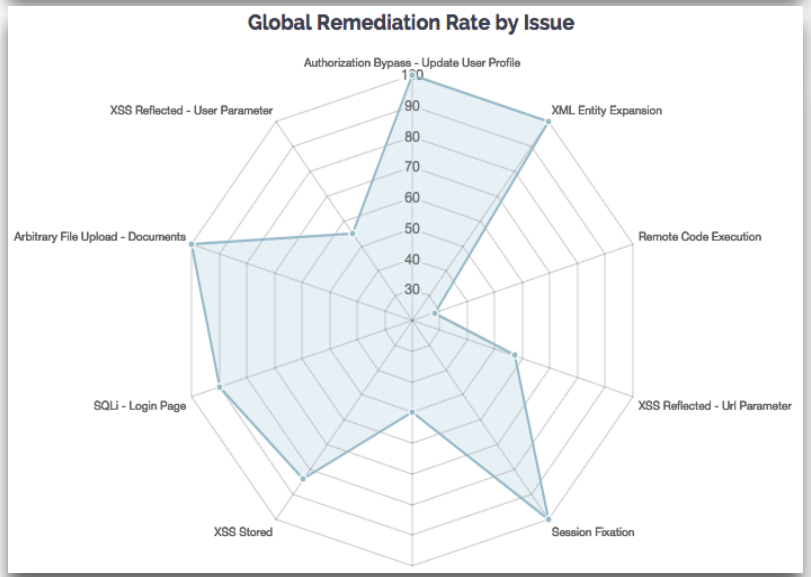
RTF.

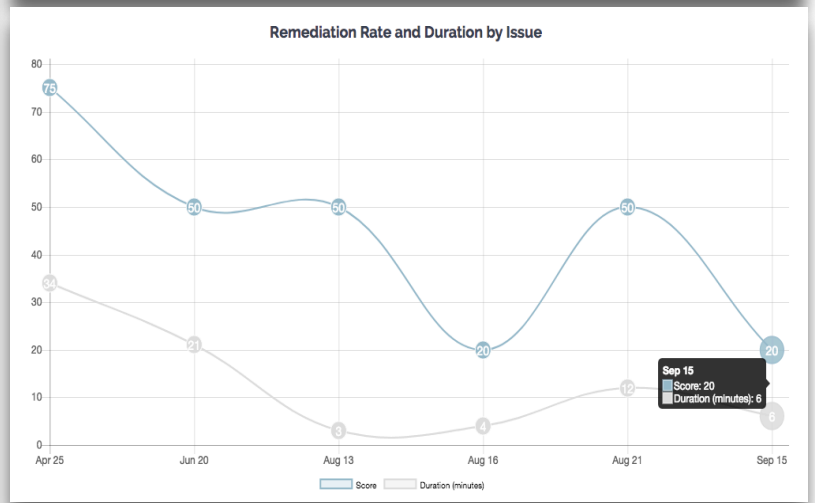
Measure ROI for Training

- Measure *real* competency in secure coding and remediation
- Metrics allow for rapid discovery and closure of gaps
  - User
  - Team
  - Geographical region
  - Organization









Live Demo

1. Start an exercise
2. Exploit vulnerability
3. Remediate code
4. Check results

Installation

Step 1

- Signup to AWS
- Purchase a Domain
- Provision TLS certificate on AWS ACM

Step 2

- Import RTF template on AWS CloudFormation
- Tweak configuration (cluster size, passwords, hostnames, SSL certificate, etc.)

Step 3

- Run template
- Wait ~ 14 minutes
- Enjoy

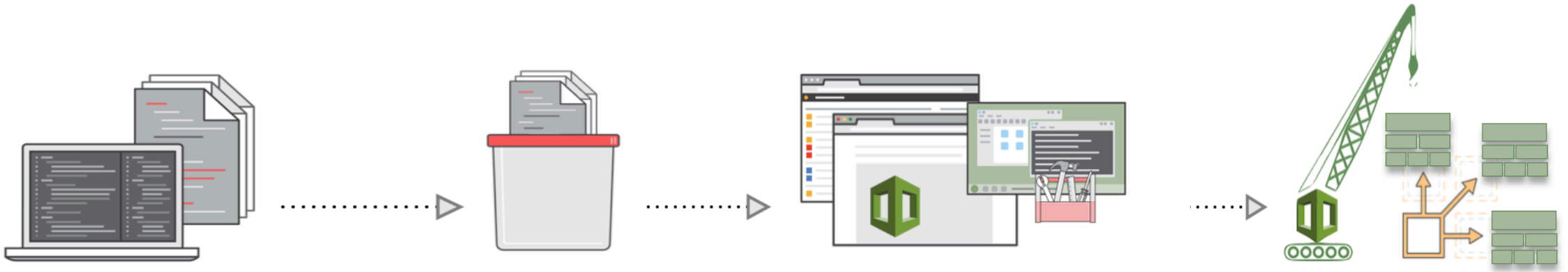


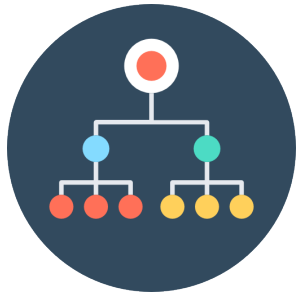
image from aws.amazon.com/cloudformation/

Configuration

Setup your structure

- Create Organizations and Teams based on your structure.
- Onboard/invite users.

Users in the same Team can compare their progress on a leaderboard.



Organizations

Teams

Users

Install Exercises

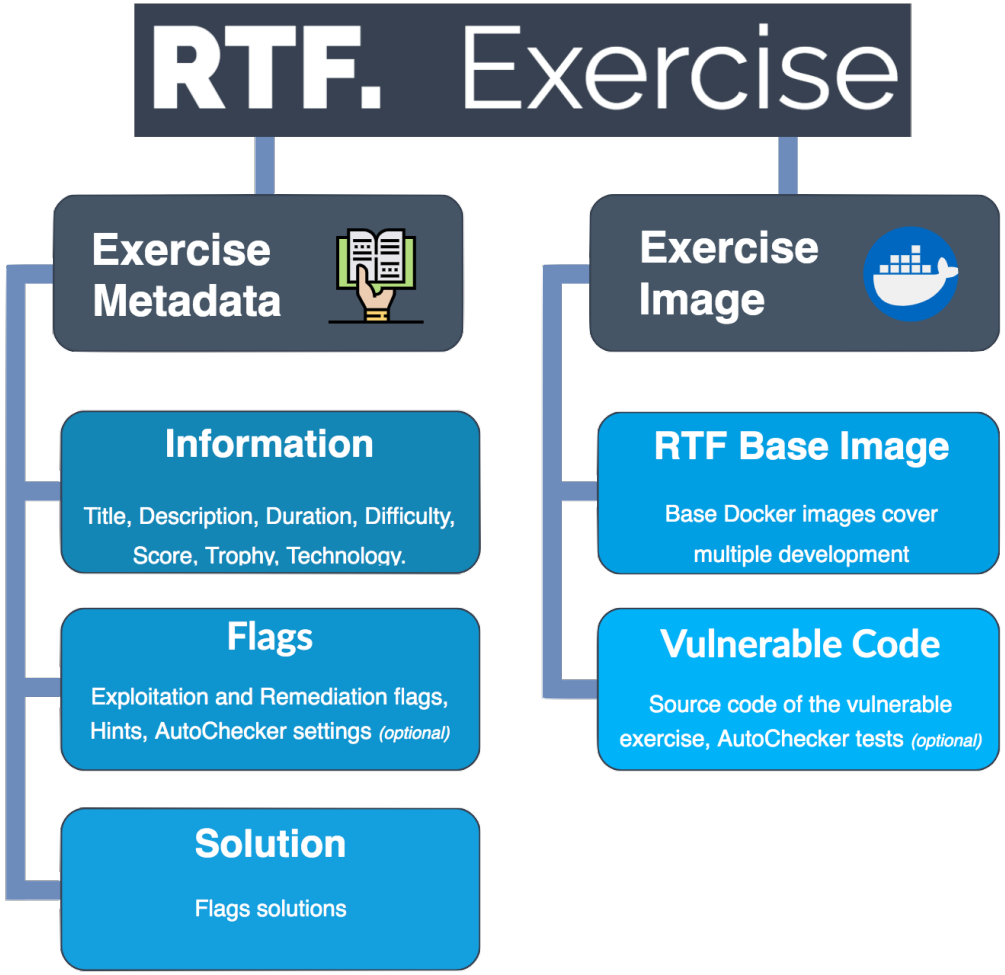
- Install Exercises from RTF Exercise Hub.
- Create your own exercises using the RTF SDK.

Exercises run in isolated DLP-friendly environments.

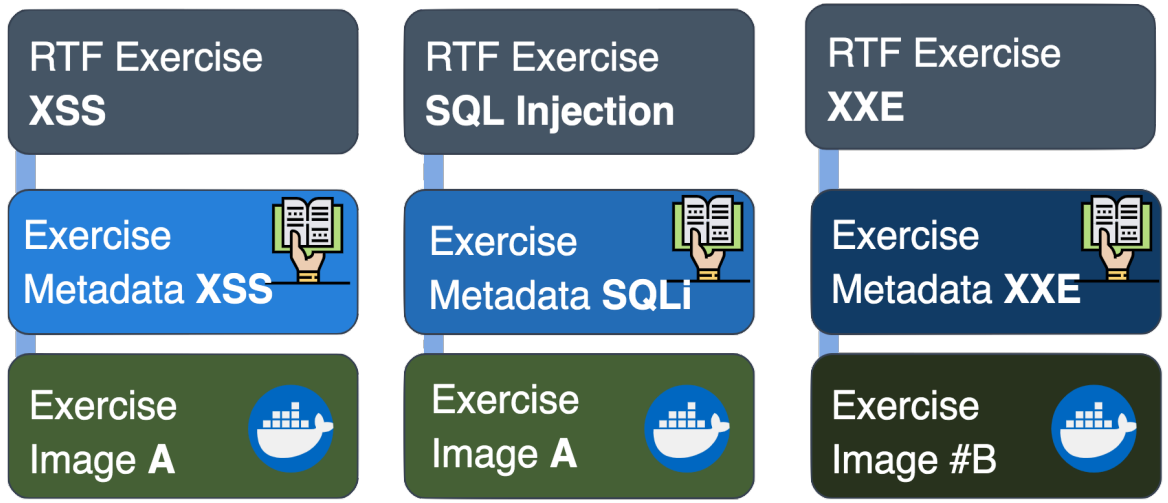
RTF. Exercise Hub

RTF. SDK

Exercise structure



It is possible to create multiple RTF Exercises reusing the same Exercise Image (e.g. *one* Vulnerable App with *many* vulnerabilities).



Creating new exercises

RTF. SDK

Create Exercise Image

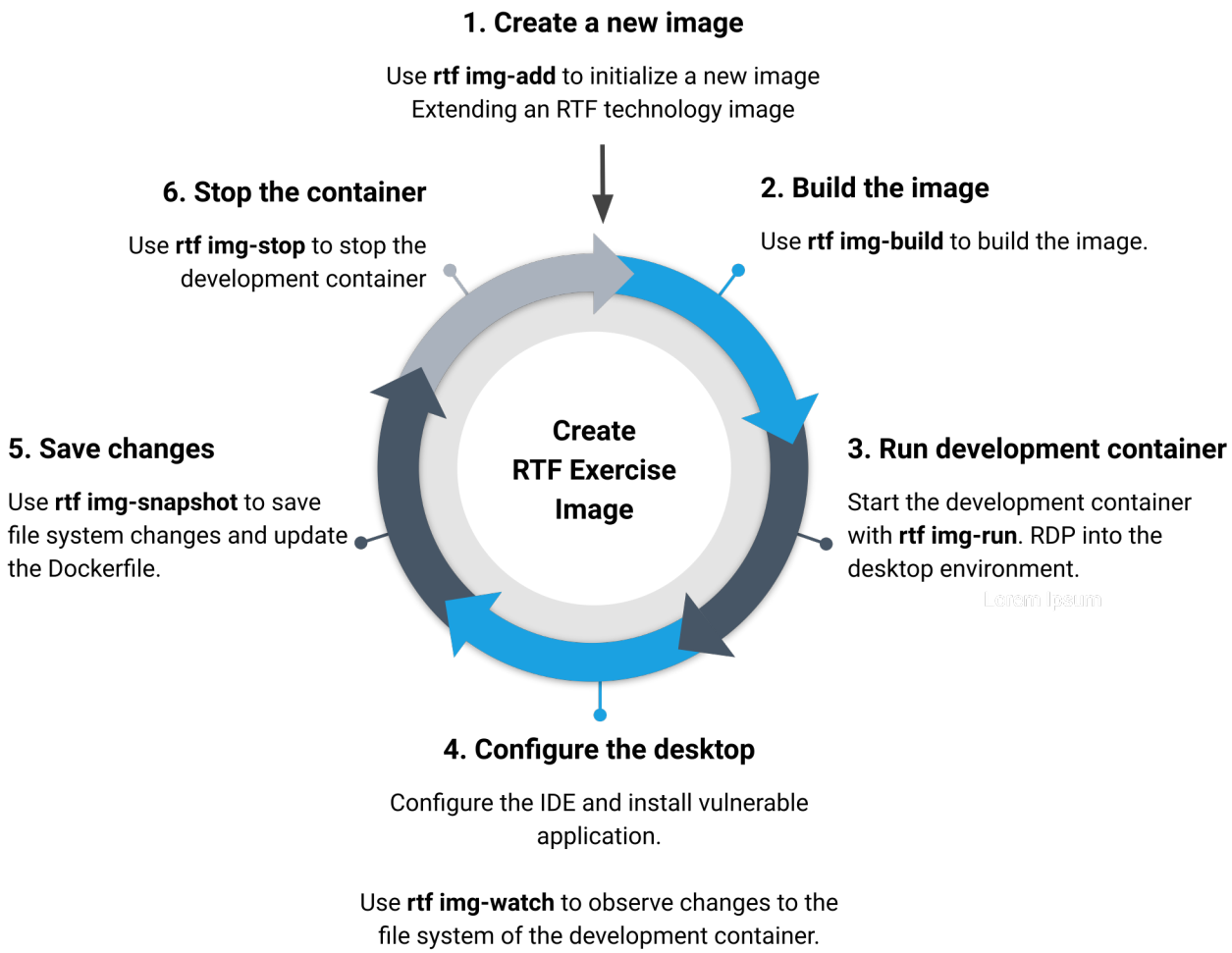
1 Create a RTF Exercise docker image that runs a vulnerable application

Create Exercise Metadata

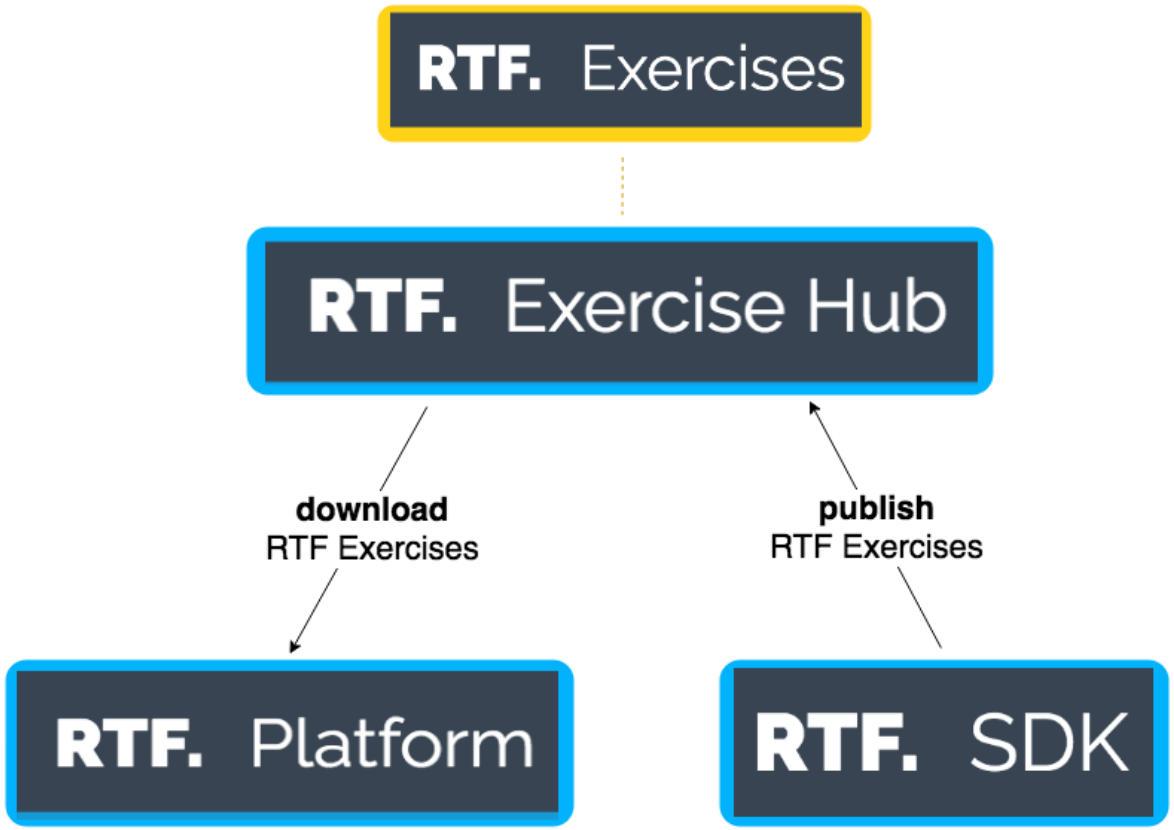
2 Describe how to exploit and remediate the vulnerabilities in the application

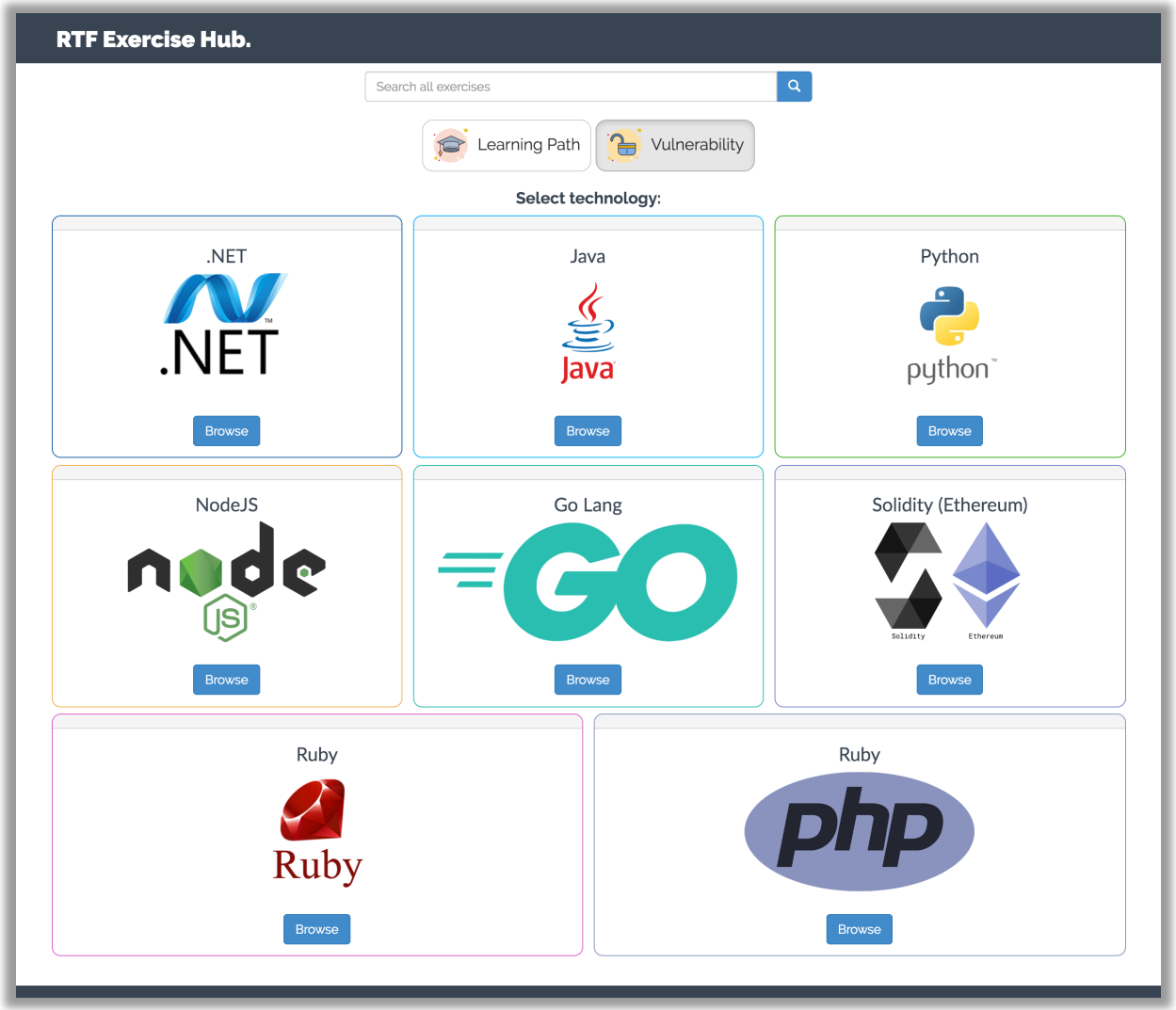
Publish

3 Publish your exercise to the RTF Exercise Hub



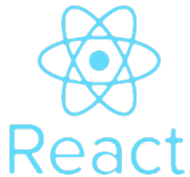
RTF Exercise Hub





Supported Exercise Technologies

On the Roadmap



Q&A

info@remediatetheflag.com

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