

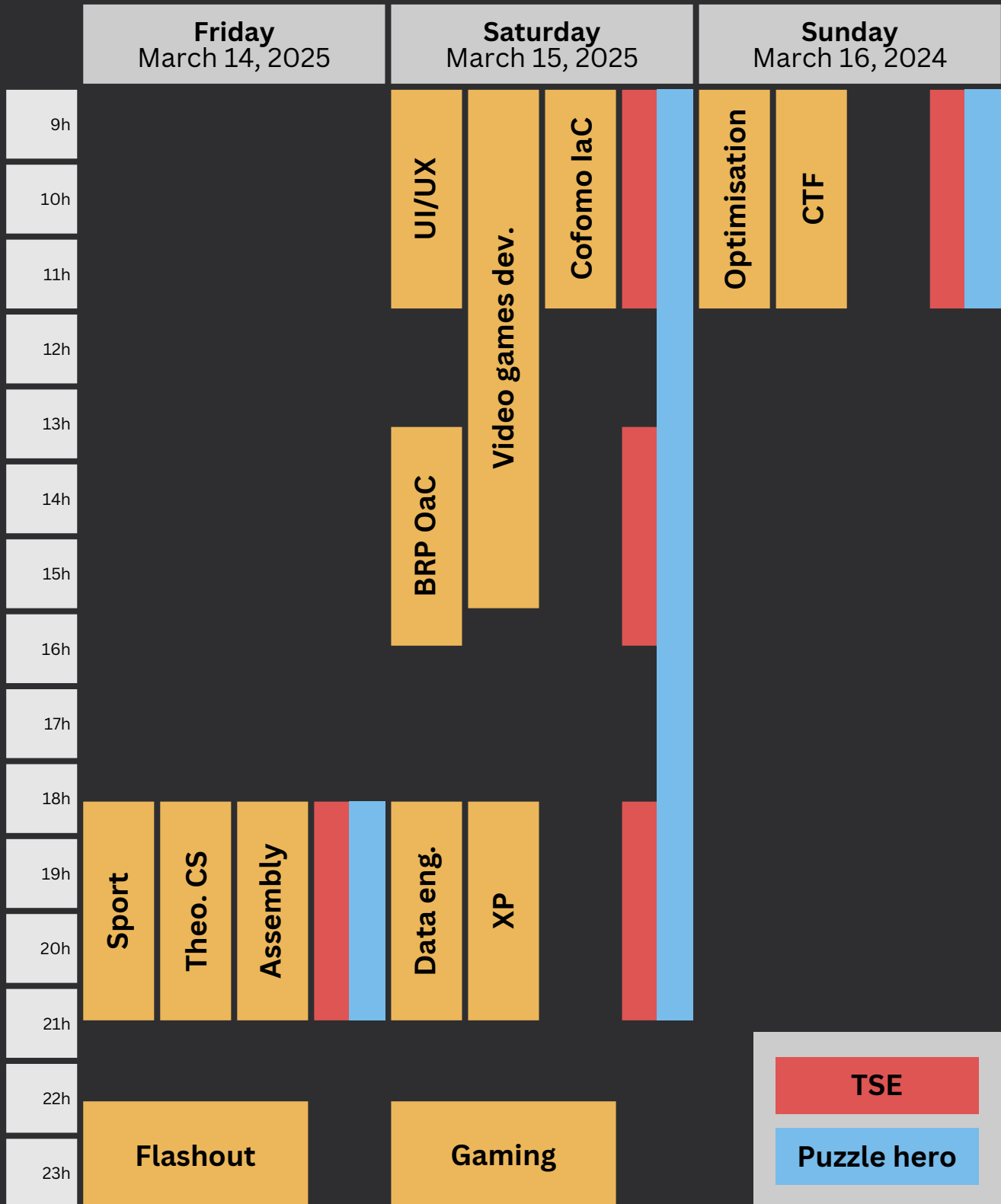
# Competitions Booklet

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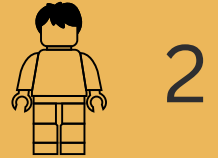
**CSGAMES 25**

# Competition Schedule



# Sport

CS Cup value: 7%



<b>Technology</b>	Legostian (documentation on site)
<b>Equipment required</b>	One computer per TEAM, paper, pencil, sportswear, water bottle strongly recommended.
<b>Permitted resources</b>	Internet, documentation

Lego City's cybercrime department is recruiting, and now it's time for the physical examination. As most people already know, the quality of a cybercrime cop is his or her ability to adapt to any situation.

In this ordeal, your whole body will be put to the test, including your brain. As usual, the service is swamped, so you'll have to deal with the various technical problems of the service while performing the physical tests.

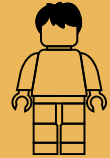
Get ready to push your limits like never before.



# Theoretical Computer Science



3



2

CS Cup value: 7%

**Technology**

Any

**Equipment required**

Pencil, eraser, non-programmable calculator

**Permitted resources**

None

Have you ever listened to the film Divergence, it's about a group of people who call themselves the Scholars. Well, that's beside the point.

In this competition, you'll have to use your imagination to find all the answers to the questions in your brain. Can you find all the information on algorithms, logic, computer theories and more in your mental labyrinth?



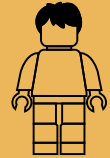
# Assembly

*Formely Mystery*

CS Cup value: 7%



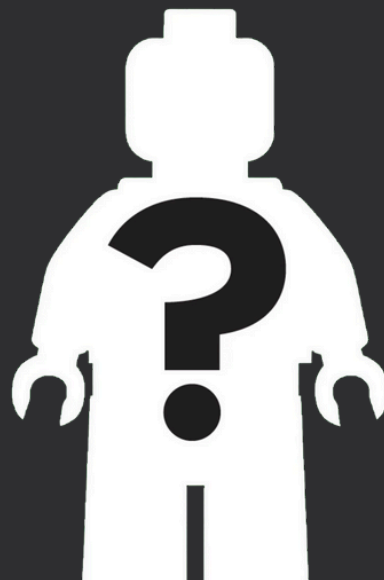
3



2

<b>Technology</b>	Mojzessembly
<b>Matériel requis</b>	Paper, pen (computer provided on site)
<b>Permitted resources</b>	Documentation (provided on site)

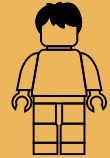
You will find a standard offering a logical approach based on the concept of cognitive deconstruction, built on a modular system inspired by Legos. Renowned for their structural simplicity and progressive stackability, they provide a tangible representation of low-level instructions used in assembly programming.



# Video Games Development



6



2

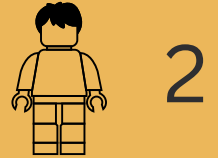
CS Cup value: 7%

<b>Technology</b>	C++23, HLSL
<b>Equipment required</b>	Paper, pencil (computer provided on site)
<b>Permitted resources</b>	Internet, documentation

After the huge success of Star Wars Lego, Indiana Jones Lego, Harry Potter Lego and other games, Lego is embarking on a brand new creation. You'll be asked to contribute to their new success by working hard to develop an outstanding game that meets Lego's high standards. Get ready to combine imagination with functionality to surpass the limits of reality!



# UI/UX



CS Cup value: 7%

<b>Technology</b>	Team's choice, we recommend Figma or Adobe XD, screen recording software
<b>Equipment required</b>	One computer per participant, paper, pencil
<b>Permitted resources</b>	Internet, documentation

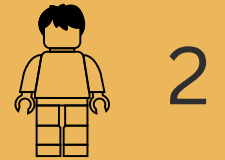
Who better than you to understand the thousands of requirements Lego imposes on their new creations? It's time to let your artistic talents and imagination do the talking. You'll have to come up with an outstanding design that complies with an incomprehensible list of requirements and information, some of which is even unnecessary. Don't forget that the user experience is just as important as the beauty of an application. Your presentation will not only have to respect many technical constraints, but also many industry constraints.

This is the perfect opportunity to be powered by your imagination.



# Cofomo

## Infrastructure as Code



CS Cup value: 7%

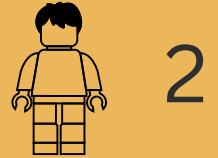
<b>Technology</b>	Bicep, Terraform, Azure
<b>Equipment required</b>	One computer per participant
<b>Permitted resources</b>	Internet, documentation

Take on the challenge of transforming a company's manual infrastructure into an automated and secure infrastructure using modern technologies like Bicep or Terraform. Work as a team to create Infrastructure as Code (IaC) scripts and set up a CI/CD pipeline to deploy both the scripted infrastructure and the provided application code on Microsoft Azure.





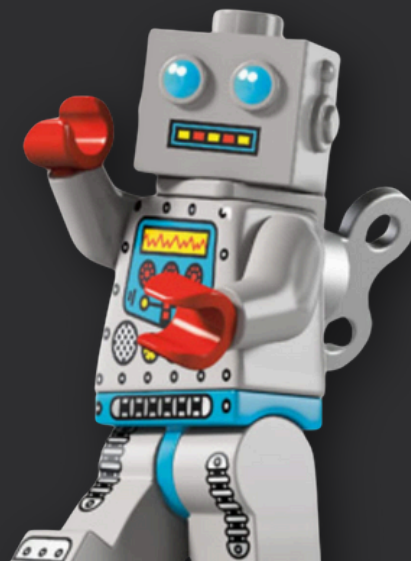
# BRR OPS AS CODE



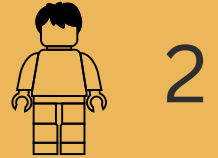
CS Cup value: 7%

<b>Technology</b>	Team's choice
<b>Equipment required</b>	One computer per participant
<b>Permitted resources</b>	Internet, documentation

Our infrastructure is now entirely managed as code, with Git as the single source of truth applying a GitOps model. We now need to analyze all this data to identify errors and apply fixes quickly. VMs without antivirus? IP conflicts? License inventories to reduce our costs? How far will you go to solve these challenges? Who can stop you?



# Data Engineering



CS Cup value: 7%

<b>Technology</b>	Team choices
<b>Equipment required</b>	One computer per participant
<b>Permitted resources</b>	Internet, documentation

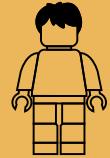
These days, data is at the heart of our ecosystem, but what can we do with millions of pieces of data when we don't understand them? In this competition, you'll have to use your imagination to make sense of it. Whether it's by creating a foolproof algorithm, using your computer's neurons or simply by luck, you'll have to let your imagination run wild to discover the secrets and logic behind it. Are you up to the challenge?



# Extreme programming



3



2

CS Cup value: 7%

## Technology

Team's choice of Python, Java or Javascript

## Equipment required

Papier, crayon (ordinateur fourni sur place)

## Permitted resources

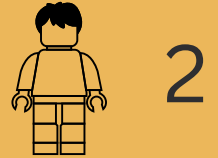
Documentation

It's easy to program, but have you ever done it in an extreme way? Imagination has enabled us to create an EXTREME competition. So get ready to reach new heights, making the most of your programming skills, your sense of deduction and your complete concentration to meet the various requirements.



# CTF

CS Cup value: 7%



## Technology

Linux (Kali, Parrot, Blackarch, etc.), security and imagination

## Equipment required

One computer per participant, personal headset

## Permitted resources

Internet, documentation

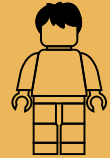
A mysterious computer virus with a negative effect on the imagination has spread across the Internet, affecting the entire world population. It is said that there are “flags”, fragments of pure creativity, hidden in cyberspace. Each flag represents an element of imagination stolen by the virus. Can you find these flags and restore the imagination?



# Optimisation



3



2

CS Cup value: 7%

<b>Technology</b>	Any
<b>Equipment required</b>	Paper, pencil (computer provided on site)
<b>Permitted resources</b>	Documentation

Have you ever wondered how to find the time to do it all? How to maximize your pleasure while optimizing your finances and minimizing the negative impact on your environment? In this competition, your imagination combined with programming will push the limits of what's feasible to optimize reality to its maximum.

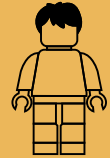


# Gaming

CS Cup value: 3%



2



1

<b>Technology</b>	None
<b>Equipment required</b>	None
<b>Permitted resources</b>	None

The gaming competition itself is not a new event, but it's happening at a new time! During the evening, you'll get to experience a competition that's bound to be explosive and intense! With the game being a mystery, you'll need to be versatile because no one knows what to expect... Racing? Platforming? Rapid clicks set to a background beat?



# Flashout

CS Cup value: 2%

The Flashout is your time to shine. It's the moment to introduce your team(s), your delegation theme, and show just how strong a contender you are for the CS Cup. You'll have three minutes to prove your worth and impress the crowd with your imagination.

Inspiration: <https://www.youtube.com/@csgames3595/playlists>

## Grading

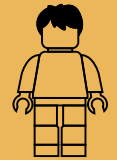
<b>Presentation of team members</b>	35%
<b>Presentation of the delegation theme</b>	20%
<b>Imagination</b>	25%
<b>Public vote</b>	20%



Penalty of 1% per second exceeding the 3-minute maximum.

# Team Software Engineering

 15

 11

CS Cup value: 9%

## Technology

Team's choice of Java, Python, Kotlin, Typescript, C# (clean code, object-oriented, clean architecture, SOLID, etc.).

## Equipment required

Paper, pencil (computer provided on site)

## Permitted resources

Internet (limited), documentation

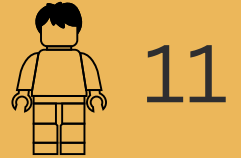
New this year, at last a competition in which the whole team will be working on the same code. It's simple: you'll have 5 periods of 3 hours each, with new requirements added each time. You'll have to use your technical skills to create an innovative solution that meets the highest programming standards. Testing, reworking and architecture are all part of the game, so let your imagination run wild. 1 week before the CS Games, you'll receive more information to help you prepare.





# Puzzle hero

CS Cup value: 9%



<b>Technology</b>	Any
<b>Equipment required</b>	None
<b>Permitted resources</b>	Internet, documentation

Puzzle hero is a CS Games staple. All weekend long, you'll be called upon to solve challenges to obtain flags.

Again this year, these challenges may or may not include: computer security challenges, physically hidden flags, the use of the word magic or even challenges beyond your imagination.



**ATTENTION** The puzzle hero will be closed during the nights to allow you to enjoy the Sieste Games!