aws

Shipper

ShipperHack 2021

9-11 April 2021

Ciptakan Teknologi Smart Warehouse Terbaikmu dalam 48 Jam

ShipperHack:

Learn, Innovate & Share

-Participants Guideline-

Indonesia: Huge Logistics Opportunities in ASEAN

US$221B
Logistics Market Revenue

17,000+
Islands

270M
Population (#4)

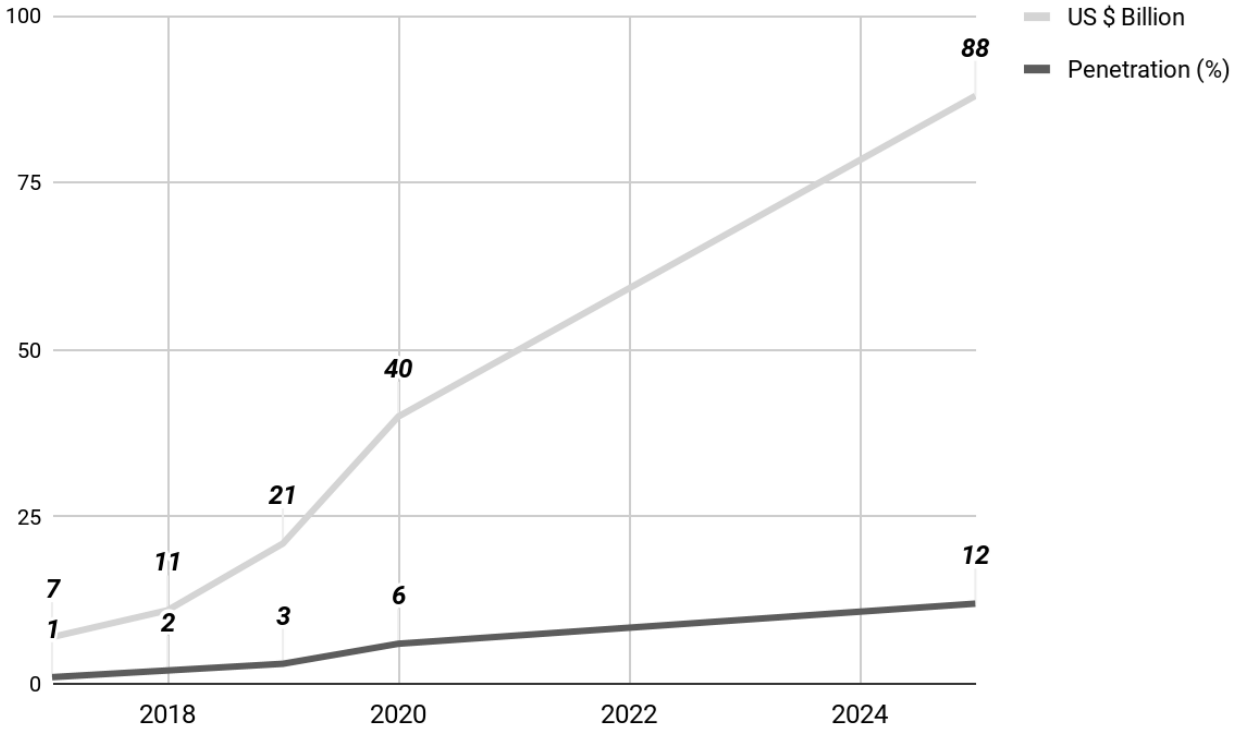
2,500+
Traditional 3PL companies

However...

46th
LPI World Rank 2018

~27%
of GDP in Logistics Cost

Driven by E-Commerce Growth



Indonesia Penetration: 6%[1]
China Penetration: 24%[2]

Potential Growth: 4x

China Parcel: 170m (~ 10% population)
Indonesia Parcel: 4-5m
Indonesia Population: 270m

Potential Growth: 6x

Indonesia E-commerce will grow well according to the China trend

[1]Redseer Report
[2]https://www.statista.com/statistics/1040590/apac-e-commerce-share-of-total-retail-by-country/

Back in 2015

Shipping

Lack of structure due to manual paper work & segregated process

- Zero (0) Visibility on Pricing and SLA
- No Pickup
- Tedious Work for Lost Claim
- Crazy Customer Support
- Clunky Decentralized Software

Warehouse

Niche service with a high upfront investment

- Limited access to service provider
- Fulfillment done by business owner
- Upfront investment required for space rent
- High opportunity lost due to poor stock management

Shipper: Structuring the Unstructured World of Logistics

Indonesian tech-enabled logistics company offering end-to-end logistics solutions specifically customized to your business needs, backed by nationwide warehouse network and advanced technological capabilities.

Our milestones and network

2016
Our journey began

May 2019
Pakdé
Acquired Pakde
4 warehouses
2 cities
5 enterprises
7 fleets

September 2019
9 warehouses
7 cities
10 enterprises
49 fleets
Raised seed funding

February 2020
PORTER
Acquired Porter
22 warehouses
10 cities
23 enterprises
196 fleets

May 2020
35 warehouses
15 cities
72 enterprises
280 fleets
Raised Series A funding

Today

30+ cities
100+ enterprises
525+ fleets
400k+ sqm warehousing
1,900+ employees

Our investors:

prosus · INSIGNIA VENTURES PARTNERS · matrix PARTNERS · Y Combinator · AC VENTURES · Lightspeed · FLOODGATE

The paramount of everything that Shipper do

VISION

Bringing convenience in people's lives to do more of what they love

MISSION

To power commerce and its supply chain through technology and data

CORE VALUES

- Customer Comes First
- One for All, All for One Attitude
- Think Big, Act Now, Intelligently
- Have Extremely High Standards
- Practice Frugality





Warehouse Operational Flow

INBOUND:
client's items arrive in the warehouse from another location (supplier, other warehouse or return order)

QUALITY CONTROL:
Part of inbound process where Shipper checks the goods received based on clients' requirements

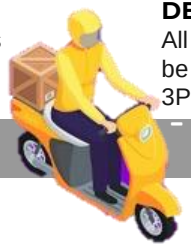
STOCK MANAGEMENT:
Stock recording and inventory auditing must be performed regularly to ensure the system records and actual counts of goods match.

PUT AWAY:
When inbound process is done, the warehouse operators will put away the items in inventory

ORDER RECEIVED:
Receive notification whenever clients' got order from their customers from all of clients' sales platform.

OUTBOUND - PICK & PACK:
Warehouse operators will pick goods from storage & pack it according to client orders

DELIVERY:
All the packed goods will be sent through selected 3PL partners



Why automation is needed?

Most common errors in warehouse is operations = **human errors**

Inefficient resources

Pick packing mistakes

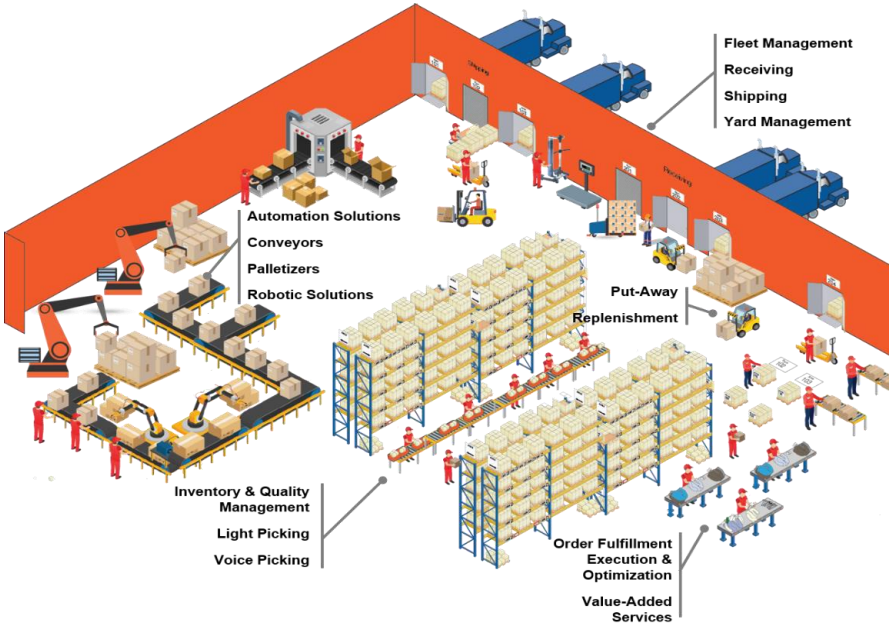
Improper material Handling

Layout Planning

Manpower Planning

Inaccurate Inventory

Poor Inventory Mapping



Real Case - Operational Process

Challenging inbound process due to conflicting schedules, invalid inbound information, and slow items quality checking

The inbound flow in a warehouse starts when client's items arrive in the warehouse from another location. Sometimes items arrive late or conflicting with other shipments. The warehouse operators register the item by scanning items' barcode and process the items according to inbound documents, such as purchase order, inbound transfer order (from other warehouse), or sales return order; these activities, most of the times are done manually, thus taking longer time to complete. **How can we improve the inbound process to be more efficient and save time?**

Ensuring accuracy in putaway process to reduce the risk of misplacing or losing items, and making sure warehouse is clean and organized

Putaway process begins after the inbound process has been completed. Once the items are received, the warehouse operators will put away the items in inventory. Having the right putaway method is very crucial since it affects the material flow and items condition in the warehouse; that includes barcoding and categorizing the items in the right shelf/area immediately. During busy times, warehouse operators tend to leave their putaway process for a later time. But this only means that they end up with boxes of items lying around, unaccounted for. **How can we improve the putaway process to make sure all received items are accounted for?**

Real Case - Operational Process

Labor-intensive Stock Recording and Inventory Auditing process

Stock recording and inventory auditing must be performed regularly to ensure the system records and actual counts of goods match. Our warehouse operators need to scan each items one by one which is a very labor-intensive process. Alternatively, warehouse operators can do bulk scanning, a slightly faster option but accuracy drops at times, largely due to human error. **How can we improve speed and accuracy when auditing inventory in the warehouse?**

Challenging pick-pack and outbound process especially during peak season

Pick-pack process begins when warehouse operators generates packing slips from the system to fulfill an order; warehouse operators then pick items listed on the packing slip from the warehouse inventory, takes them to the packing station where it's boxed and labeled for delivery to customers. It is especially challenging during high season, when the outbound orders is expected to increase by 3-5 times more than usual; this may reduce warehouse operators accuracy in processing outbound orders. **How do we improve picking and packing process and get orders out in maximum speed and accuracy?**

Real Case - Manpower & Facility Management

Challenges in Onboarding hundreds of ground workers at the same time at multiple locations, in a seamless manner

Shipper employs thousands of groundworkers at our 160+ warehouses across Indonesia. We regularly hire new team members, especially during peak campaign season when orders are expected to increase by 3-5 times. Ideally, we want all new hires to quickly learn about Shipper ground rules, fulfillment SOPs, and other trivial things such as logistics jargons. Our team of trainers are currently conducting these sessions on regular basis for each new batch of hire. **How do we optimize new hire onboarding/training process and ensure they retain the knowledge in order to perform well?**

Facility issues on the ground need to be alerted to relevant teams and addressed quickly to avoid delay in processing orders

To support any fulfilment activities, the warehouse needs to be kept at its best condition. A small leak on the roof may cause damage to the warehouse inventory; inadequate lighting might cause ground workers not able to see labels clearly leading to errors in pick-pack process; there's no such thing as trivial matters at the warehouse. But at times, few things might get damaged and fall apart which will need immediate attention. This is currently done manually by Warehouse Manager, notifying procurement team to replace faulty equipments. **How do we monitor our warehouse regularly, identify and anticipate any potential issues in the future?**

Real Case - Other real cases

Challenges in providing warehouse client a seamless onboarding experience

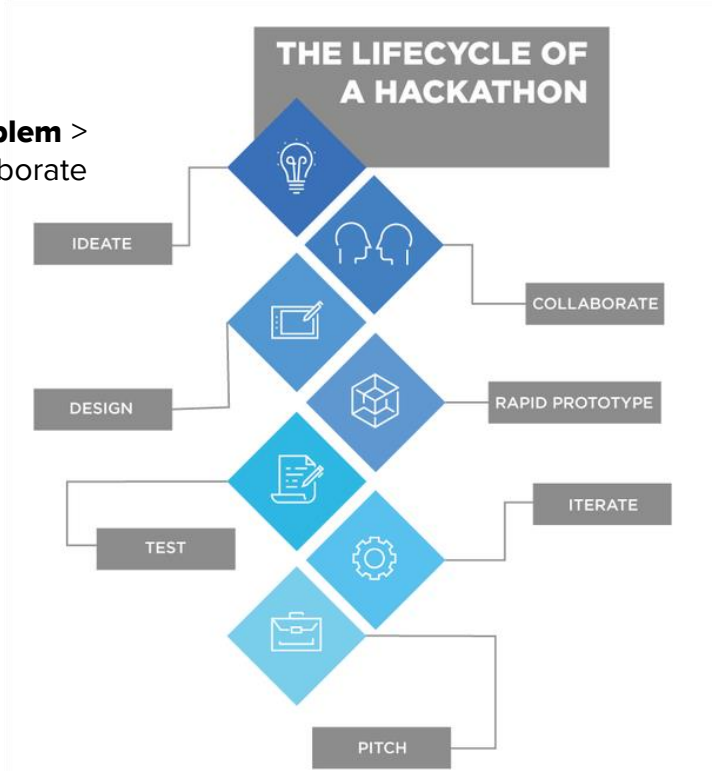
Client onboarding process begins as soon as they signed a contract agreeing to use Shipper warehouse service. Today, our client onboarding process includes getting the client to visit our warehouse, showing them the warehouse layout and racking plans, and sharing Shipper Warehouse SOPs via email. Due to the pandemic, clients are reluctant to do warehouse visits resulting in a less than ideal onboarding experience that might cause expectation misalignment. **How do we improve our clients onboarding experience without physically visiting the warehouse?**

- **Ground worker shift scheduling**
- **Warehouse IT connectivity for lighting, temperature control, and more**
- **Warehouse Security Management (CCTV Control Panel)**

What is Hackathon

Welcome to Shipperhack 2021 - for a hackathon first timer, what should I do

Solving Real life problem >
Ideation > Collaborate



Implement in the idea , Develop your smart warehouse application -

A design process centered around user testing and iteration

Creating **the rapid prototype using API KEY shared**

Prototype Thinking is a revolutionary methodology for rapid learning-possibility for real life application

It's not about ideas. It's about making ideas happen

ShipperHack 2021 - Introduction

Theme: Application for Smart Warehouse

Smart warehouse systems are the result of the various interconnected warehousing technologies working together. They form a technological ecosystem where goods are received, identified, sorted, organized and pulled for shipment automatically. **The best smart warehouse solutions automate almost the entire operation, from suppliers to customers, with minimal errors.**

Team Rules

Ops Automation: Provide expertise in best practices on warehouse ops automation.

Application Development: Write code in any language that you are comfortable with.

Cloud computing: Use Amazon Web Service cloud computing services to deploy your server side application.

What to prepare for Hackathon days ?

1. Have you confirm your shipping address ?
   If you have, Shipperhack Goodie bag is on the way to your place
2. Find your Shipperhack shirt and wear it on day 1 & day 3
3. We will place you into a team, you will receive the email with your team member details on April 7th
4. Create your team name, Choose your team Leader (He/She will be the main PIC for your team) and submit to shipperhack@shipper.id or contact your LO participants at the latest on April 9th
5. Rename your zoom name with format : TeamName_YourName
6. Bring your best idea
7. Ready to race in 48 hours !
8. Don't forget to eat ! Feel free to order your food with 30% discount via KULINA apps during the event on 9-11 April 2021, with the code : **KULINAXSHIPPER** max 3 times usage per user (go to option "Langganan" or "Acara" to redeem the voucher)
9. If you have any questions during Shipperhack feel free to reach out to your LO or +62 813-1498-1473 (Irin)
10. For any technical questions or queries outside Shipperhack session you can go to **WA Group Tech here**

Participant Requirements during Hackathon

ShipperHack 2021

9-11 April 2021

Ciptakan Teknologi Smart Warehouse Terbaikmu dalam 48 Jam

zoom

ShipperHack 2021 dilaksanakan secara *online* melalui Zoom pada tanggal 9 - 11 April 2021

Peserta wajib mengikuti seluruh rangkaian acara dengan tetap menerapkan protokol kesehatan

Peserta wajib mengenakan pakaian yang rapih dan sesuai dengan norma kesopanan.
Serta di hari 1 & 3 memakai baju shipperhack

Peserta diharapkan menggunakan *earphone/headset* untuk penerimaan audio yang lebih baik, tetap menghidupkan video, dan menonaktifkan suara (*Mute Audio*) agar tidak menimbulkan gangguan suara selama acara berlangsung

Peserta wajib menjaga ketertiban dan mengikuti setiap rules yang telah dibuat oleh pihak panitia.

Participant Requirements during Hackathon

ShipperHack 2021

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zoom

ShipperHack 2021 dibagi menjadi 2 room. Room utama dan breakout room presentasi

NAME

Peserta wajib mengikuti format penulisan nama/ID Zoom sesuai ketentuan yang ditetapkan oleh panitia.

Nama Team_Nama Peserta

Contoh:

GAJAHMADA_Nam Do San

Masing-masing peserta dapat melakukan presentasi, materi presentasi akan ditampilkan oleh HOST, sesuai dengan materi yang telah disubmit kepada panitia.

Seluruh rangkaian kompetisi dan tanya jawab sepenuhnya dipimpin oleh moderator pada masing-masing room

Peserta wajib mematuhi jadwal yang telah ditetapkan oleh panitia. *Time-signal* setiap tim penyaji yang tampil akan ditandai dengan bunyi bell atau papan tanda dari moderator

Event Rundown Participants

7 April	**Technical Brief - Pre Hackathon**	
TIME		**ACTIVITY**
5:00PM	5:30PM	**Opening & Shipper Brief**
5:35PM	6:30PM	AWS Brief
6:30PM	7:00PM	Q&A Session
7:00PM	7:20PM	Info Hackathon Brief by MC & Closing
7:20PM	7:40PM	Mingle Session - for participant early introduction
9 April	**HACKATHON DAY**	
TIME		**ACTIVITY**
6:30PM	6:35PM	**Opening**
6:35PM	6:50PM	Introduction - Shipper (Speech)
6:50PM	7:05PM	Introduction - AWS (Speech)
7:05PM	**7:15PM**	Hackathon - Start
7:15PM	7:45PM	Break into groups
7:45PM	8:15PM	**First mentor checkpoint - Sesi 1**
8:00PM	8:30PM	**First mentor checkpoint - Sesi 2**
8:30PM	8:35PM	Info Hackathon rundown by MC & MC Closing
8:35PM	12:00AM	Information Center Via Whatsap Group (Gmeet by request)

Event Rundown

10 April **HACKATHON DAY**

TIME		ACTIVITY
9:01AM	9:05AM	**Hackathon Day 2 - Start**
9:05AM	**9:35AM**	**Second mentor checkpoint - Sesi 1**
9:35AM	**10:05AM**	**Second mentor checkpoint - Sesi 2**
10:05AM	4:05PM	Hackathon
4:05PM	**4:35PM**	**Third mentor checkpoint - Sesi 1**
4:35PM	**5:05PM**	**Third mentor checkpoint - Sesi 2**
5:05PM	5:10PM	MC Closing
5:10PM	12:00PM	Information Center Via Whatsapp Group (Gmeet by request)

Event Rundown

11 April **DEMO DAY**

TIME		ACTIVITY
8:00AM		Final Submission 8 AM
9:00AM	9:15AM	Event Start
9:15AM	9:30AM	Judges Introduction
9:30AM	**10:45AM**	**Pitches & Demo Part Team #1 - #5**
10:45AM	11:15AM	Break
11:15AM	**12:0 0AM**	**Pitches & Demo Part Team #6 - #8**
12:00PM	1:30PM	Lunch Break
1:30PM	**2:45PM**	**Pitches & Demo Part Team #9 - #13**
2:45PM	3:15PM	Break
3:15PM	**4:00 PM**	Judges Evaluation Games & Interactive Session
4:00PM	4:05PM	Speech by Ibu Widiastuti
4:05PM	4:30PM	Announcement Winner + Closing Ceremonial
4:30PM	5:00PM	Closing + Photo session

Shipperhack - Mentors

These mentors are **industry expert, their business insight** and skill will be especially valuable at this time to help you **build a usable and interesting project:**

Your mentor will be assigned randomly, do check them out !

David Kumoro

17 years as technical lead and software architect he is currently working as Engineer Advisor for Engineering Department at Shipper.id, with a main responsibility to work with CTO improving the process quality, build and facilitate engineering team moral/skills/leadership, and improve infrastructure reliability and security.

Agus Salim

Strong background as mobile and web apps developer, currently working as Technical Lead at Shipper.id with a main responsibility to work together with EM and SL to manage teams, designing flow and architecture of app level, and giving suggestion and solution for SE and SL.

Yusuf Septiananda

Well experienced in Mobile and Web Apps Development, is currently a Tech Lead at Shipper.id that works along with SL to make sure project deliver on time and also guiding Software Engineer and Senior Software Engineer to improve their Technical Expertise.

Wendy Adi

Engineering Manager at Shipper. Wendy mainly manage engineering teams related to Shipper's aggregator business. He cares about making impactful product that can help people live a better life. A tech generalist and innovation seeker.

Shipperhack - Mentors

Kurniadi Hidayat

Engineering Manager at Shipper.id with experience in Backend Development. Supervising the work of multiple teams and make sure deadline of each project is meet.

Rafi Fardiansyah

Lead SRE at Shipper.id with more than 10 years experience maintaining IT Infrastructure, with a total of 4 years working on Telco Industry and 4 years working on Media Industry. Currently, he is managing multiple kubernetes clusters using AWS EKS, mantaining data pipeline using AWS MWAA, AWS ECS Fargate, AWS EMR, and CI/CD Pipeline.

Elmo Tan

is currently working as a Lead FE Mobile at Shipper.id, with a responsibility to create Shipper App (previously known as BOS). integrating tools for checking review from play store, monitor and optimize performance on react native apps, and helping on solve release cycle issues.

Bintang Anggoro

Analytics & Insight Manager at Shipper with extensive experience in interdisciplinary applications of operations research, especially in the context of retail operations and healthcare. Currently responsible for providing actionable insights through warehouse operational analytics

Shipperhack - Judges

Petra Novandi Barus

is Developer Advocate at Amazon Web Services based in Jakarta. He is passionate in helping startups and developers in Indonesia to reinvent on behalf their customers. Prior to AWS, Petra co-founded UrbanIndo.com as CTO. The startup became the largest real-estate portal in Indonesia and then was acquired by 99.co. During that time Petra had been a happy AWS customer for 8 years.

Marvinus Kokoh Arif

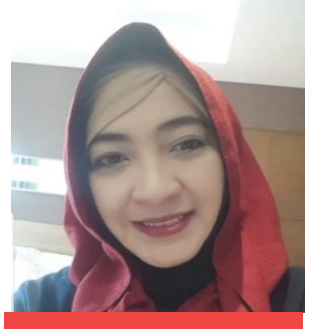
Seasoned architect with more than 10 years experience in building and shaping technology product in several tech startups and unicorn. Currently, he is driving the tech transformation in Shipper as CTO.

Natali Ardianto

A very experienced CTO with extensive technological and product knowledge. With over 10 years experience running a company as CTO at Tiket.com , Emasdigi and Golfnesia He is now acting as Co-founder & CEO at Jovee.id & Lifepack.id
Awarded The Best e-Corp 2015: Best IT System 2015 and Prestige 40 under 40 Nation's Most Inspiring Young Personalities.

Ridy Lie

Strong background as tech lead, he formerly leading Orami as CTO. Now he is well know as a Partner & Head of Tech at Insignia Ventures Partners in Seattle, Washington.



Widiastuti

Joining **Ministry of Trade** since 1994. She was the Head of Biro Pengawasan Berjangka fisik Since 2019, then leading as the Head of Biro pembinaan dan pengawasan Sistem Resi Gudang & Pasar Lelang Komoditas since 2020.

Shipperhack 2021 -

Documents to submit

Prototype & Business Models

Deliverables from each team need to consists :

- Contextual information
- Synopsis of the idea
- Execution details
- Complete details in the PPT including prototype / video embed in ppt
- Link source code in git format

The prototype need to create during the hackathon period. All the IP of the application will remain with Shipper, please make sure that the idea submitted is an original idea and has not been used before.

Your team will have to upload / Submit your application onto the **https:/h/forms.gle/dgb2bCGjVMusato28** **at 8AM - 11th April 2021**

Consultation room will be available up to 12 am at WAG

The demo / presentation session will be 7 mins for presentation + 5 mins Q&A

Judging criteria

1	*Business value (20%)*
	* How significant was the problem we try to resolve
	* Was the solution marketable
2	*Innovation value (20%)*
	* Was this new solution?
	* Originality of the ideas
3	*Technical creativity/ Execution (20%)*
	* Was the solution elegantly designed per architecture best practice?
	* Was solution designed to scale?
	* Was the solution applicable
4	*AWS System (20%)*
	*incorporating AWS on the application
	*How far the application on AWS ecosystem
	Generic Criteria
5	**Complexity (10%)**
	Capability and overall complexity level of proposed Idea
	Elaborative and self-explanatory design
6	**Creative Presentation (10%)**
	*How creative is the ide & other supporting deliverable is presented

Shipperhack - AWS Technical Guide

Event Engine

Your team **will be provided a temporary AWS account** to help you build your applications using AWS services. This AWS account is provided by a platform called EventEngine. You can only use this AWS account during the hackathon period. After the event finished, the account will be destroyed including all the resources created by that account. You may want to backup your code or assets.

Platform Restrictions

The EventEngine platform will provide you with hundreds of services that are enough for you to develop your application starting from the basic AWS services such as Amazon EC2, S3, and RDS until advanced one such as Amazon AI Services. However there are some restrictions to the platform.

1. We will use one region `us-east-1`. You cannot use AWS regions outside `us-east-1`.
2. AWS Organizations and Billings are disabled.
3. Business/Enterprise Support, Trusted Advisor, Reserved Instance Purchase, S3 Object Lock, AWS Marketplace are disabled.
4. Route53 Domains are disabled.
5. Large Instances, e.g. x1.32large are disabled.

Additional Tools for Participants

Some of the tools you might need during Shipperhack :)

AWS TECHNICAL GUIDELINE

API KEY

Business Model Canvas

Dummy Data Shipper

Market research: How to Understand Your Customers

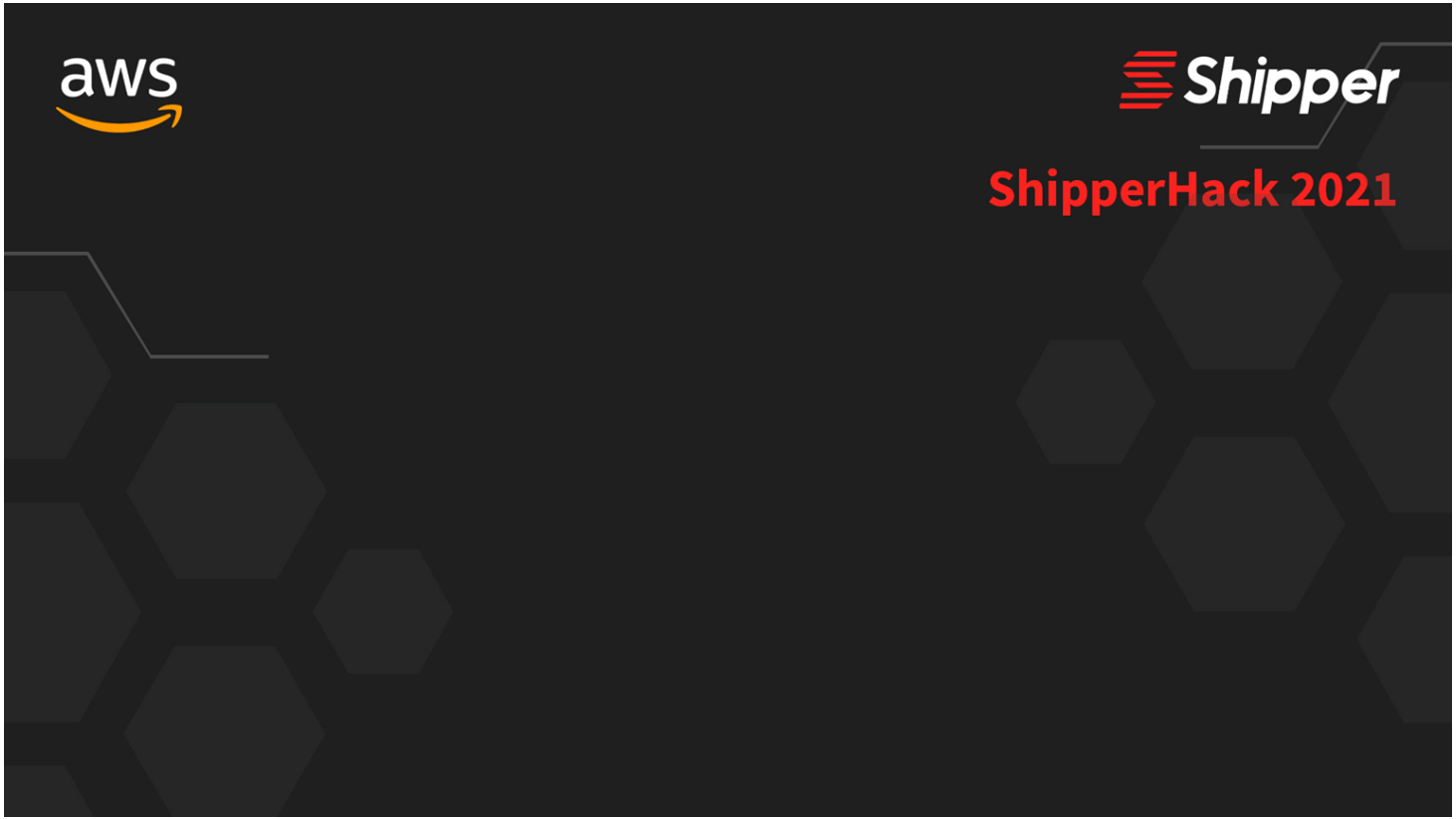
No Code MVP + Developer Tools:
Moqups, Marvelapps, Adobe UX, InVision

Design & Presentation Tools:
Unsplash, Noun Project, Icons8, Ouch, FreePik, Undraw, Artboard.Studio

Additional Design & Slide Tools:
Canva, Powtoon, HiSlide, TinyTake

What smartwarehouse looks like :
Amazon smartwarehouse

Virtual Background



Thank You