

The logo for Singapore University of Social Sciences (SUSS) features the letters 'SUSS' in a bold, sans-serif font. The 'S' and 'SS' are dark blue, while the 'U' is red. The 'U' has three small red dots stacked vertically above it.

SUSS

SINGAPORE UNIVERSITY
OF SOCIAL SCIENCES

SUSS BUS100

Business skills & management

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Objective of using MonsoonSIM

- Explain a broad spectrum of business concepts through a simulation game.
- Demonstrate how to run a business through a simulation game.
- Describe various business functions and departments of a typical business.
- Illustrate the cause and effect relationship between the drivers and the results.

Introduction

- Use MonsoonSIM in BUS100 - Business skills and management course
- First foundation course for all business students in SUSS
- First run for July 2018
- 500 students from various business programme
- Give students an overview of the business
- Instruction given to sign up before class to sign up

Overview of Business Functions

- Use MonsoonSim to learn about real-business world through their unique, experiential learning platform.
- There are twelve departmental functions in the MonsoonSIM game.

B2B or wholesale	Customer Service	Finance & Accounting
Human Resource	Logistics and Warehouse	Maintenance
Marketing	MRP	Forecasting and Planning
Procurement	Production	Retail

Sign up in MonsoonSIM

- Log on to: <http://www.monsoonsim.com/>
- For first timer, click on Member login (at the right hand corner).
- After you click on Member Login, use **SUSS email** to sign up and remember your 4 digit password.
- Follow the steps until you are successfully sign up and wait for instruction.

Play the game

- Log on to: <http://www.monsoonsim.com/>
- Join the **Live game** using the Game Quote, which will be given by your instructor.



- Join a team that you are assigned to

Join the teams



Status: STOPPED | Last Stopped Day: 0 | Max: 130 | Sec: 15 | ma nang laik | V: 6 | SUSS|BUS100_Test 31495_14003



Manage Teams and Players

+ New Team

Load From Past Games

Registration Unlocked

T1

Anibot



T2

Jonbot



T3

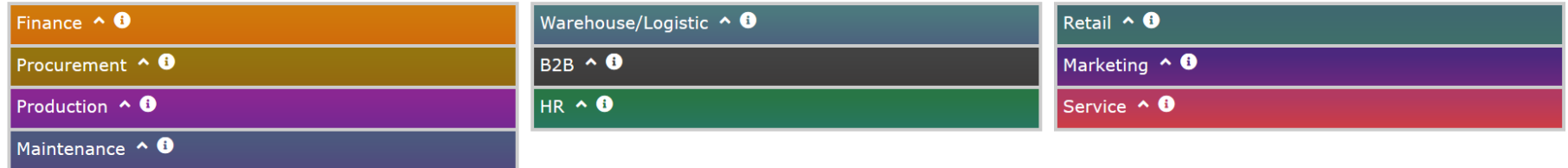
Linbot



After successful log in to the game



Day
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- There are twelve department, you should learn more about each department from study guide.
- Imagine you are running this virtual company. Your company is selling Apple, Orange and Melon juice.
- You need to Procure from suppliers before selling them at retail.
- You can also buy raw material and produce your own finished goods.

Class environment

- Give an overview of the games
- Without introducing too much of what each department will do
- Ask them to experience it themselves
- Warm up for the games is being set up and they will use the time to play and understand functions among each department
- Reset the games after warm up

Finance



Day
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Profit and Loss (AUD). Day: 0

Operating Revenue

- Retail Sales TOTAL
- Singapore - Apple Juice
- Singapore - Orange Juice
- Singapore - Melon Juice
- Jakarta - Apple Juice
- Jakarta - Orange Juice
- Jakarta - Melon Juice
- Kuala Lumpur - Apple Juice
- Kuala Lumpur - Orange Juice
- Kuala Lumpur - Melon Juice
- Wholesale Sales TOTAL

You can look at the financial status of the company during simulation.

Procurement

Day 0 of 130

monsoon SIM SUSS SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

Finance Procurement Retail Marketing Forecast

Procure Finished Goods Procure Raw Materials PO list

Finance Procurement Production Maintenance

FINISHED GOODS PURCHASE

Your game is stopped. You are not able to perform any transaction

Vendor	VFG1	VFG2
Apple Juice	0 AUD	0 AUD
Orange Juice	0 AUD	0 AUD
Melon Juice	0 AUD	0 AUD
Discount	10% for >= 20000 20% for >= 30000	10% for >= 20000 20% for >= 30000
Leadtime	1Day	1Day

Buy From

Deliver To

#Apple Juice #Orange Juice #Melon Juice

Regular Purchase - immediate delivery

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- You can purchase (Finished Goods or Raw Materials), Leadtime is 1 day
- Two vendors to buy from and deliver to retail stores and warehouse various quantity you want
- There is discount if you buy in volume and you can also opt for future delivery or blanket purchase.
- PO List – Someone needs to approve the PO before it is executed. It will be in the mail box (The last icon).



Retail



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Navigation bar with tabs: Finance, Procurement, Retail, Marketing, Forecast, Warehouse/Logistic, B2B, Production, MRP, Maintenance, HR, Service. Sub-navigation bar: Location, Set price, Price, Sales by product, Unit sold, Unit remain.

SET RETAIL PRICING

Your game is stopped. You are not able to perform any transaction

AUD

For Singapore	For Jakarta	For Kuala Lumpur
Apple Juice <input type="text"/> + -	Apple Juice <input type="text"/> + -	Apple Juice <input type="text"/> + -
Orange Juice <input type="text"/> + -	Orange Juice <input type="text"/> + -	Orange Juice <input type="text"/> + -
Melon Juice <input type="text"/> + -	Melon Juice <input type="text"/> + -	Melon Juice <input type="text"/> + -

- You can look at graphs by prices, sales by product, unit sold and unit remain.
- You can also adjust the space of each retail store.

Marketing



Day 0 of 130

Navigation bar with tabs: Finance, Procurement, Retail, Marketing, Forecast, Warehouse/Logistic, B2B, Production, MRP, Maintenance, HR, Service. Below it, buttons for: Set marketing expenses, Buy Mkt Report, View marketing report.

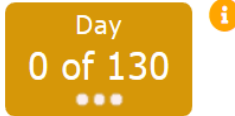
DAILY MARKETING INVESTMENT(AUD/DAY)

Your game is stopped. You are not able to perform any transaction

For Singapore	For Jakarta	For Kuala Lumpur
Apple Juice Program + -	Apple Juice Program + -	Apple Juice Program + -
Orange Juice Program + -	Orange Juice Program + -	Orange Juice Program + -
Melon Juice Program + -	Melon Juice Program + -	Melon Juice Program + -

- You can set **daily** marketing expenses.
- There are three program A, B, C and some media are more effective than others for different locations.
- You need to analyse and observe which media works best.
- You can buy marketing report to understand competitors and market situation and view marketing report.

Forecast



- You can view the Forecasted retail demand and wholesales demand.
- It is the demand for the whole market.
- If there are peaks in demand due to holiday season, you can prepare your retail store to meet the surge in demand.
- As a player, you can't change the Forecast.

Warehouse/Logistic



Day
0 of 130



Finance Procurement Retail Marketing Forecast Warehouse/Logistic B2B Production MRP Maintenance HR Service

Location Stock Move list Schedule auto replenishment Stock remaining warehouse

Stock Moves

AUTO REPLENISHMENT

Your game is stopped. You are not able to perform any transaction

Singapore		Jakarta		Kuala Lumpur	
Trigger point	Replenish from Warehouse (unit)	Trigger point	Replenish from Warehouse (unit)	Trigger point	Replenish from Warehouse (unit)
When Apple Juice below..	0 + -	When Apple Juice below..	0 + -	When Apple Juice below..	0 + -
When Orange Juice below..	0 + -	When Orange Juice below..	0 + -	When Orange Juice below..	0 + -
When Melon Juice below..	0 + -	When Melon Juice below..	0 + -	When Melon Juice below..	0 + -

- You can move stock between retail and warehouse.
- You can also schedule auto replenishment for various retail stores.
- You can also look at stock remaining at the warehouses.

Incoming Wholesale Offers			
Offers from corporate customers	Total Deal	Days	Deal or Bid
Bid No: 40 Main Inc opens tender for 58,500 units Melon Juice Maximum Willing To Pay (WTP) 27.17 Minimum bidders 1 late penalty: 7000 AUD/day Terms: C.O.D	Depends on final winning bid	Day published: 1 Day need : 9 Bid result day: 4	Bid!
Offer No: 39 Main Inc solicits 58,500 units Melon Juice@ 21.85 AUD late penalty: 6000 AUD/day Terms: C.O.D	1,278,225 AUD	Day offered: 1 Day need : 8	Deal!

- Show B2B offers will display a list of wholesales offer. There is Deal or Bid.
- For bid, you need to monitor if you win the bid. Take note of Day needed and quantity required and WTP price, late penalty and terms.
- Tendering is the process of choosing the best or cheapest company to supply goods or do a job by inviting several companies to make offers. Tender document include many details including Tender Open Date, Minimum Participants, WTP (Willing To Pay), which is the maximum amount of price the company is willing to pay. The document also has a tender open date which is the day for winner announcement.
- The Sales Order is a confirmation of an agreed sales of product or services. Typically, a Sales Order (SO) is created once an agreement has been reached through a Purchase Order received from our buyer (customer).
- For deal, you get it instantly and you need to fulfil the deal, otherwise there is a late penalty.

Production



Day
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Machine	Age (days)	Capacity (unit per day)	Book Value (AUD)	Option
MachineID:168 (Series A)	3 Day	10000	285,000	Dispose

- You need to buy machines for production.
- You also need raw materials based on BOM (Bill of Material).
1 unit of Box, 2 unit of Straw for 1 unit of Apple (Similar configuration for orange and melon).
- There is production order and daily production capacity.

MRP



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SET PRODUCTION VS OUTSOURCING SPLIT

Producing vs Outsourcing

70% Produce, 30% Procure

Submit



SET BUFFER STOCK

Buffer stock for Apple Juice (units)

46400

Buffer stock for Orange Juice (units)

8000

Buffer stock for Melon Juice (units)

58600

Submit

- By running MRP, the system will help to take care of production.
- You can set preferred vendor, product vs procure or set safety stock.

Maintenance

Asset	OEE	Predictive Maintenance	Periodic Maintenance	Option
MachineID:168 +	96%	Set Predictive	Set Periodic	
MachineID:176 +	97%	Set Predictive	Set Periodic	
MachineID:184 +	97%	Set Predictive	Set Periodic	

- If you have machine, you need to do maintenance.
- You can set predictive or periodic.

HR



Day 18 of 130



Navigation bar with tabs: Finance, Procurement, Retail, Marketing, Forecast, Warehouse/Logistic, B2B, Production, MRP, Maintenance, HR, Service. Sub-navigation: Headcount by Dept, Headcount summary, Hire new staff.

Staff summary - by Department

Department	#Planned	#Actual	#Issue	#Resigning	#Shortfall	Competency Index	Headcount Index	Staff Index
Retail-Singapo	4	4				100%	100%	100%
Retail-Jakarta	4	4	1			100%	100%	100%
Retail-Kuala L	4	4	1			100%	100%	100%
Procurement	4	4				100%	100%	100%
Marketing	4	4				100%	100%	100%
Warehouse-Bangkok	4	4				100%	100%	100%
B2B	4	4				100%	100%	100%

- In HR module, you can hire new staff and give consultation to those who have issue.

Service



Day 23 of 130



[Latest News] B2B Demand(Unit): Apple Juice(63,000), Orange Juice(74,000), Melon Juice(112,000) T1 won a service deal from

- Finance
- Procurement
- Retail
- Marketing
- Forecast
- Warehouse/Logistic
- B2B
- Production
- MRP
- Maintenance
- HR
- Service
- Charts
- Messages (5)
- Info

- Incoming service requests
- Service Sales Order list

Incoming Service Request			
RFQ ID	Work offer	Days	
RFQ #690	VIP Ltd needs quote for Technical Support for 6 Mandays Maximum Willing To Pay (WTP) 90,000 AUD Minimum bidders: 1 teams Bid Result Day: 27 Evaluate by: Price Late delivery penalty: 200 AUD/delay day Terms: C.O.D	Day published: 22 Day need : 32	Plan a quote
RFQ #689	Main Inc needs quote for Technical Support for 2 Mandays Maximum Willing To Pay (WTP) 30,000 AUD Minimum bidders: 1 teams Bid Result Day: 27 Evaluate by: Price Late delivery penalty: 200 AUD/delay day Terms: C.O.D	Day published: 22 Day need : 34	Plan a quote

- Look at incoming service request and plan for a quote.
- Margin is high for service. It is one of the main revenue stream for the company.

Challenges faced by students

- Do not know how certain functions work (especially in these modules: services, MRP, HR, Marketing)
- No strategic direction
- Everyone is a leader and doing its own thing
- Just run the silo department without communicate with others in the team
- How to manage cash flow and delinquency?

Advantage of simulation game

- Ice breaker for students
- Good experiential learning environment
- Fun to play with
- Need strategy to win
- Not good enough to only know your functional department
- Need teamwork or collaboration to run the company

Moving forward (Jan 2019)



4-5 members in the team

Final presentation by team

(10 minutes presentation by team)

- After running the simulation game, reflect on what you have learnt. You need to find way to improve your company finances, inventory and retain talents.
- What are the key performance indicators or report you can refer to?
- What is your strategy to run the company?
- What is your focus area?
- How can you perform better in future run?

Grading Rubrics

Presentation skills

Strategies

In-depth analysis

Learning points

Finance, Procurement, Production and Maintenance

Finance ^ ⓘ	
Sales (AUD)	74,809,994
Trading Profit (AUD)	28,530,008
Operating Expense (AUD)	9,936,935
Net Profit (AUD)	18,593,073
Cash On Hand (AUD)	18,334,456
Overdraft (AUD)	0
Bank Facility (AUD)	2,500,000
#Delinquent Payout (Occurance)	0
COGS - Apple Juice (AUD)	9.63
COGS - Orange Juice (AUD)	11.95
COGS - Melon Juice (AUD)	12.33

Procurement ^ ⓘ	
PO - Approved	2
PO - Delivered	128
Staff# Procurement	👥 9

Production ^ ⓘ	
MachineID:168 Capacity	9,840
MachineID:176 Capacity	9,781
MachineID:184 Capacity	9,565
MachineID:192 Capacity	8,173
MachineID:232 Capacity	7,696
Staff# Production	👥 4

Maintenance ^ ⓘ	
MachinesID:168 OEE	98%
MachinesID:176 OEE	98%
MachinesID:184 OEE	96%
MachinesID:192 OEE	82%
MachinesID:232 OEE	77%
Staff# Maintenance	👥 11











Warehouse, B2B and HR reports

Warehouse/Logistic ^ ⓘ	
Shipment in Progress	1
Shipment Completed	29
Bangkok - Inv - Apple Juice (unit)	33,000
Bangkok - Inv - Orange Juice (unit)	87,200
Bangkok - Inv - Melon Juice (unit)	0
Bangkok - Raw Material - Box (piece)	0
Bangkok - Raw Material - Straw (piece)	0
Bangkok - Raw Material - Apple (piece)	0
Bangkok - Raw Material - Orange (piece)	0
Bangkok - Raw Material - Melon (piece)	0
Area usage (m2)	<div style="width: 77%;"><div style="width: 100%;"></div></div> 1397 of 1700
Staff# Warehouse-Bangkok	4

B2B ^ ⓘ	
SO Outstanding	1
SO Delivered	75
Staff# B2B	4

HR ^ ⓘ	
Employee Turnover Ratio (%)	0.11
Staff Index Retail-Singapo (%)	100
Staff Index Retail-Jakarta (%)	100
Staff Index Retail-Kuala L (%)	91
Staff Index Procurement (%)	100
Staff Index Marketing (%)	100
Staff Index Warehouse-Bangkok (%)	100
Staff Index B2B (%)	100
Staff Index Production (%)	100
Staff Index Maintenance (%)	100
Staff Index Marketing Support (%)	100
Staff Index Franchise Support (%)	100
Staff Index Technical Support (%)	100

Retail, Marketing and Service reports

Retail ^ ⓘ	
Singapo - Price - Apple Juice (AUD)	12
Singapo - Price - Orange Juice (AUD)	30
Singapo - Price - Melon Juice (AUD)	16
Singapo - Inv - Apple Juice (unit)	13,370
Singapo - Inv - Orange Juice (unit)	14,925
Singapo - Inv - Melon Juice (unit)	13,259
Area usage (m2)	 137 of 200
Staff# Retail-Singapo	 6
Jakarta - Price - Apple Juice (AUD)	12
Jakarta - Price - Orange Juice (AUD)	30
Jakarta - Price - Melon Juice (AUD)	16
Jakarta - Inv - Apple Juice (unit)	9,422
Jakarta - Inv - Orange Juice (unit)	11,137
Jakarta - Inv - Melon Juice (unit)	9,917
Area usage (m2)	 101 of 150
Staff# Retail-Jakarta	 9
Kuala L - Price - Apple Juice (AUD)	12
Kuala L - Price - Orange Juice (AUD)	30
Kuala L - Price - Melon Juice (AUD)	16
Kuala L - Inv - Apple Juice (unit)	12,370
Kuala L - Inv - Orange Juice (unit)	14,608
Kuala L - Inv - Melon Juice (unit)	6,723
Area usage (m2)	 ⓘ 111 of 100
Staff# Retail-Kuala L	 8
Marketing ^ ⓘ	
Marketing Investment	
Market Share - unit sold - retail (%)	31.40
Market Share - sales - retail (%)	32.70
Staff# Marketing	 4
Service ^ ⓘ	
Service Bid missed	540
Service Bid in-progress	3
Service Bid completed	49
Complaint received	5
Complaint handled	4
Staff# Marketing Support	 4
Staff# Franchise Support	 9
Staff# Technical Support	 4

Overhead breakdown (%)

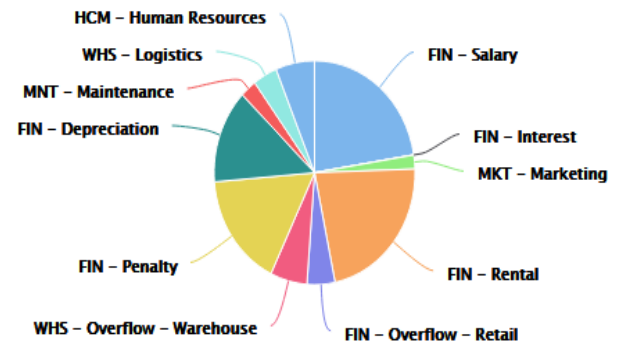
Navigation menu: Finance (selected), Procurement, Retail, Marketing, Forecast, Warehouse/Logistic, B2B, Production, MRP, Maintenance, HR, Service, [Charts], [Envelope], [Info].

Secondary navigation: P & L, B Sheet, T Balance, Delinquents, P & L, Overhead (selected), Overhead, Staff count, [Info].

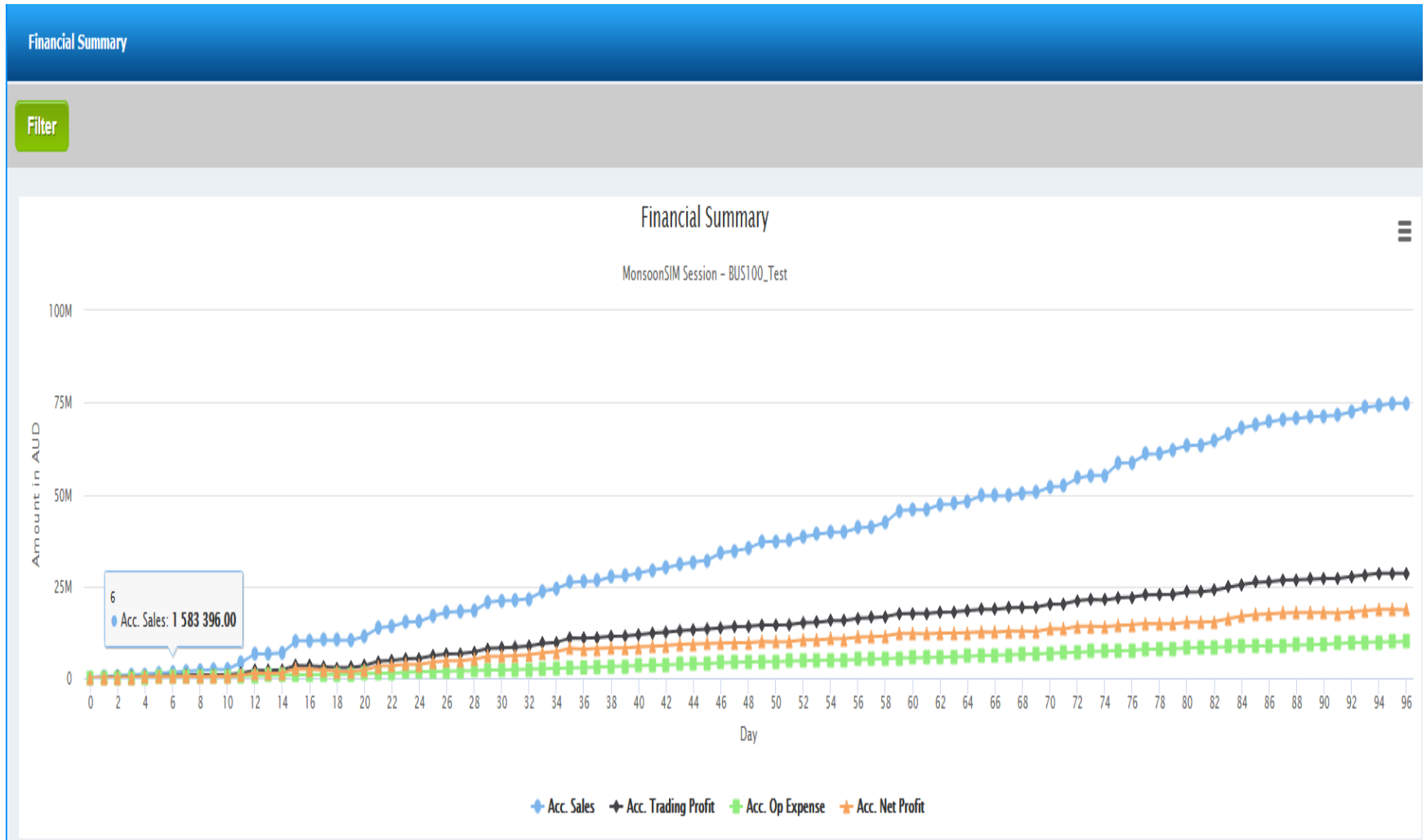
Latest Overhead Breakdown (%)

Latest Overhead Breakdown (%)

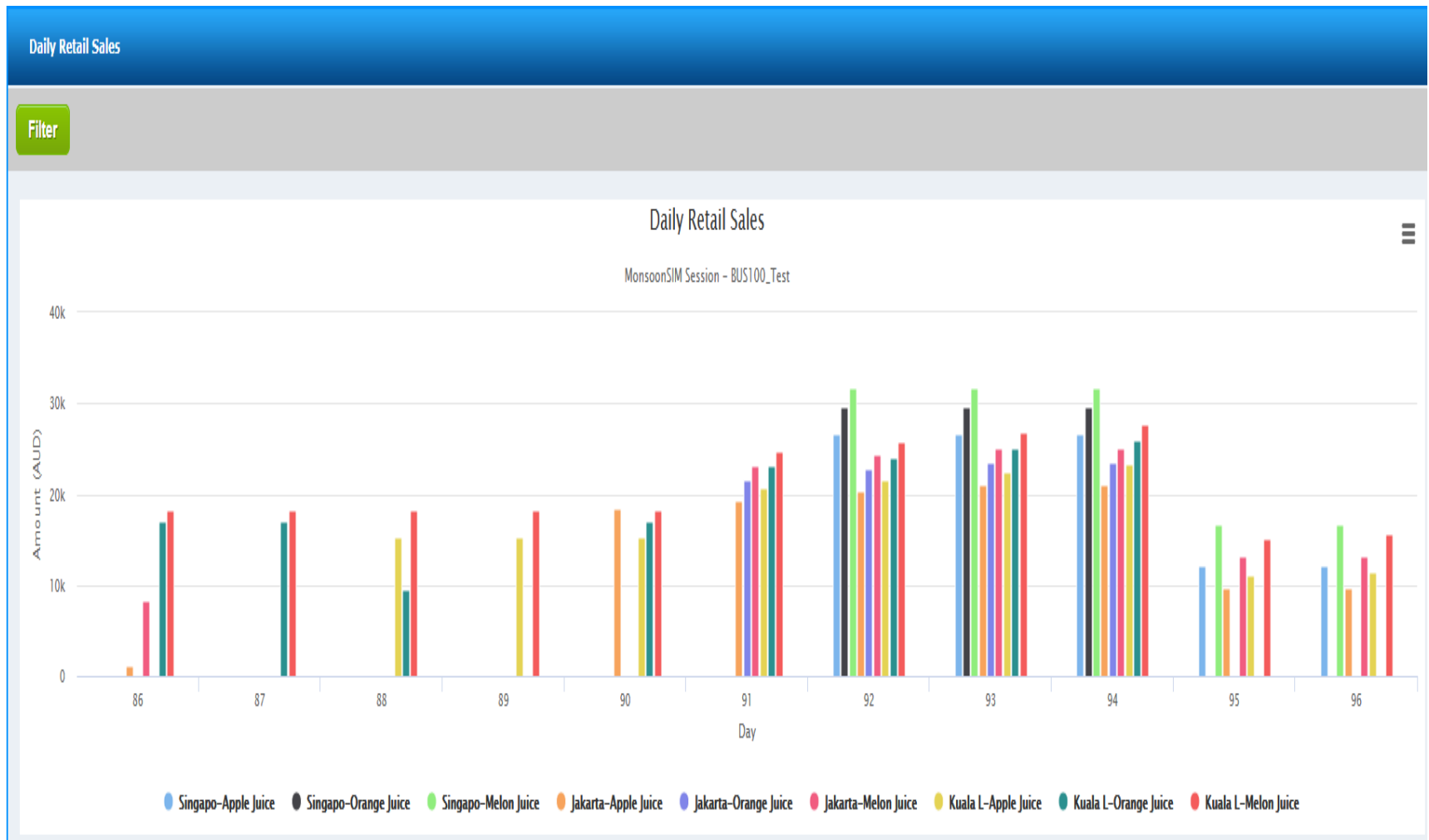
MonsoonSIM Session - BUS100_Test



Financial Summary



Daily retail sales

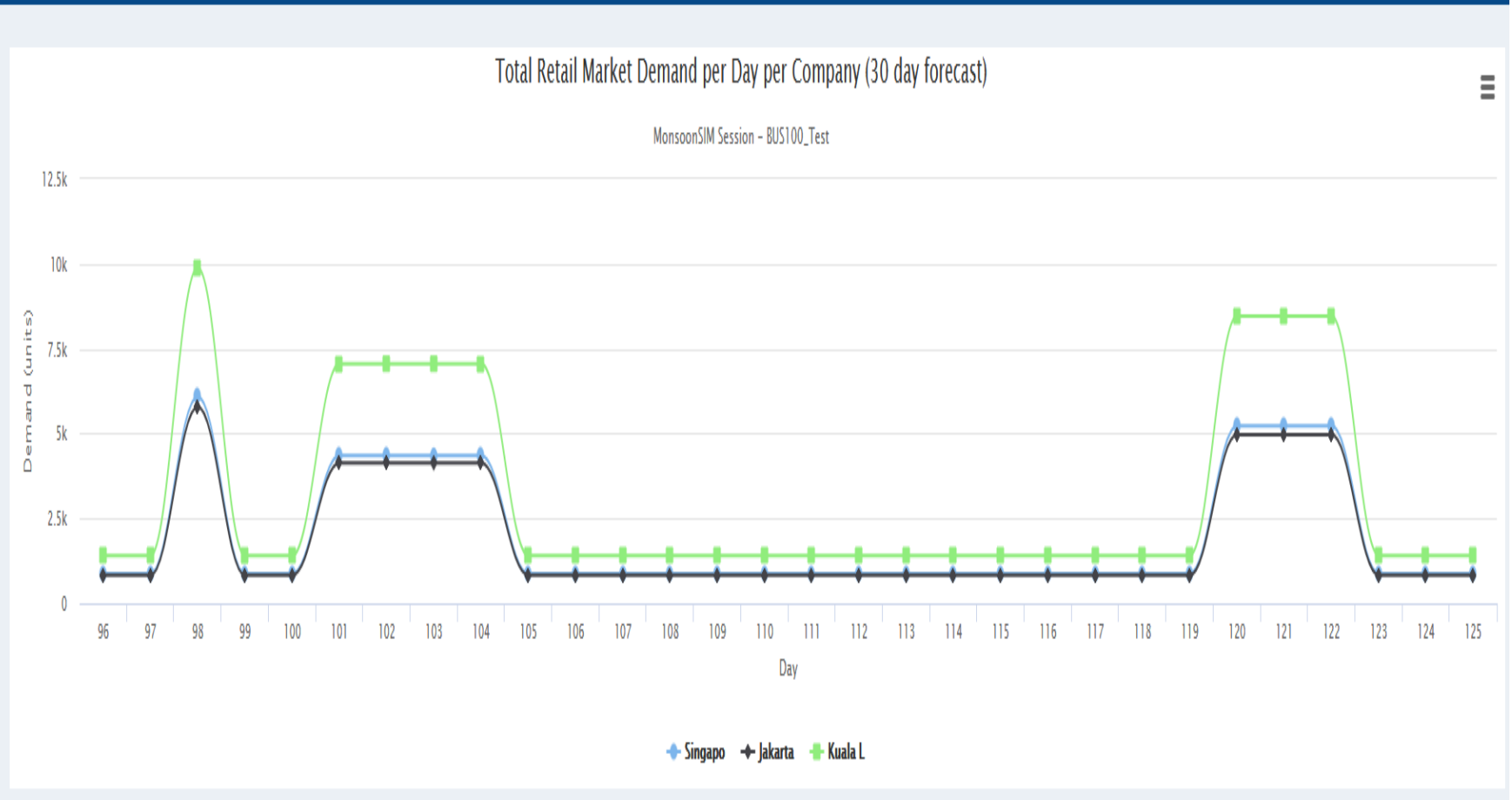


Inventory Remaining at retail stores



Retail demand

Total Retail Market Demand per Day per Company (30 day forecast)



B2B Market demand

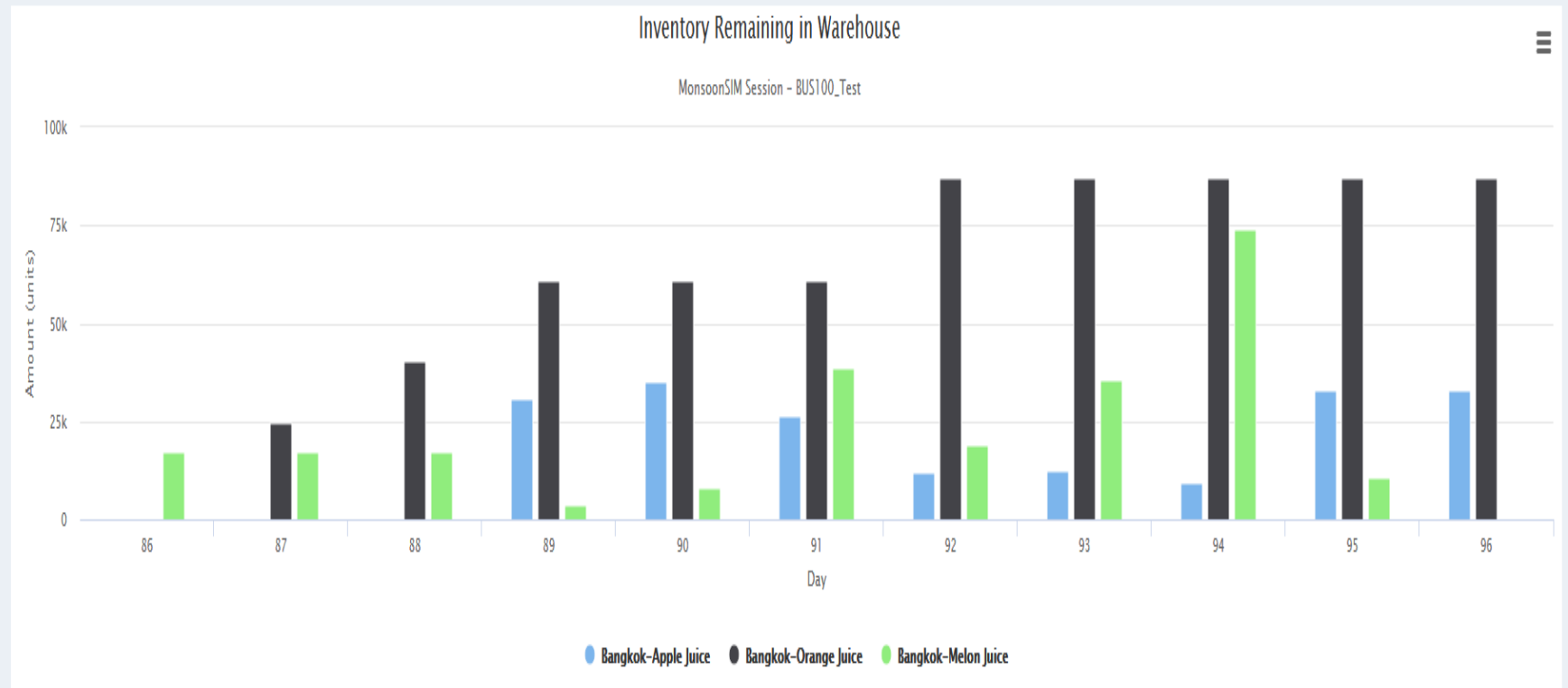
Total B2B Market Demand per Day (30 day forecast)



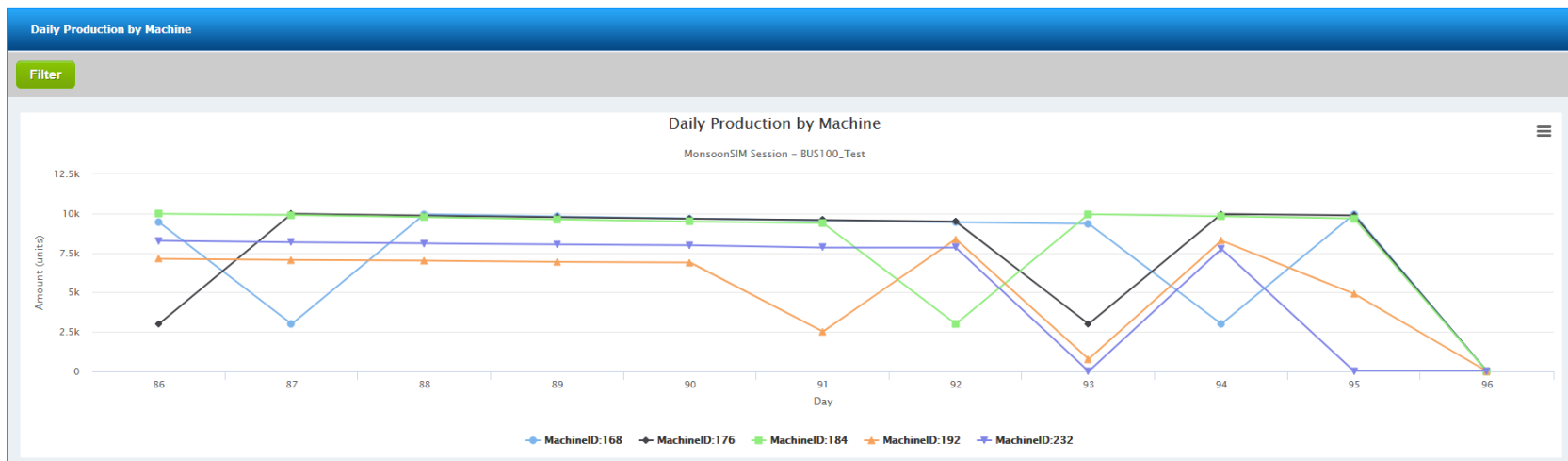
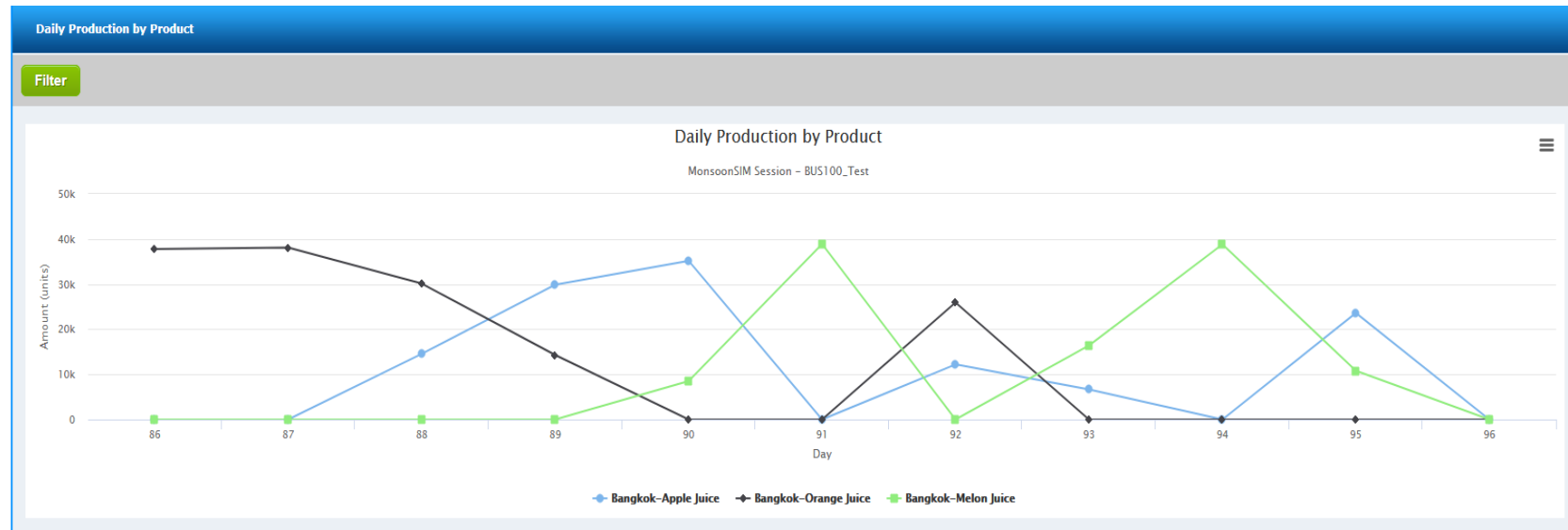
Inventory remaining at warehouse

Inventory Remaining in Warehouse

Filter



Daily production



HR

Latest Staff Count (Day: 96)



Sample Assessment Questions

Jane operates a company called “Fruity Shop”. It sells apple juice, orange juice and melon juice. Jane rents a retail space to sell these items and the cost of goods sold (COGS), selling price and daily demand for each item is given in the table below:

The rental cost is \$20,000 per month. Jane has hired 5 staff to help her in the shop and the manpower cost is \$30,000 per month. She also spends \$20,000 monthly on marketing to promote her products and increase her brand awareness. Assuming that there are 22 days in a month.

Description	COGS (\$)	Unit Selling price (\$)	Demand per day
Apple	\$ 10.00	\$ 14.00	400
Orange	\$ 12.00	\$ 15.00	300
Melon	\$ 13.00	\$ 16.00	250

- Construct a spreadsheet** model to analyse the company **monthly finance**, the model show include total revenue (\$), total expenses (\$), profit/loss and profit margin (%).
- If the company wants to increase the profit margin to 10% by changing the selling price of Apple, what will be the new selling price?
- For every \$1 increase in price, the demand will drop by 20. What is the relationship between the selling price and the demand for all juice? What is the demand if the selling price \$17?
- What will be the new selling price for all juices, if the company wants to earn 20% profit margin, your model should include the price elasticity of demand. Describe how you derive at the solution and clearly show the new profit margin and selling price. (Hint: use solver)

Sample Assessment Questions

Using your experience of running a virtual company in MonsoonSIM,

- **Describe** three ways how you can increase the revenue through **B2B sale**, and providing customer services and reduce your operational expenses by analysing some keys performance indicators of **HR** department.
- **Discuss** how the organization manage risks and give a detailed explanation of your recommendations.

Others

- Encourage students to participate in MonsoonSIM annual competition
- Network and learn from others
- Form special interest groups and have regular training sessions
- Identify potential candidates for our business programme
- Use in logistics programme (EOQ, Buffer/Safety stock, inventory management theory, transportation and supply chain)



Thank you