BIZ ANALYTICS

Another academic year has passed, and we are now able to welcome a new cohort of students to the Business Analytics community. To date, much has occurred. Before we get started, let us review the events planned and hosted by the Business Analytics Interest Group (BAIG) over the last few months.

To engage the Business Analytics (BSBA) community members, BAIG hosted an Artificial Intelligence (AI) Beginner's Workshop, whereby AISG's courseware engineer trainers, Mr Guo and Mr Andrew, were invited to deliver a session on machine learning and AI ethics. Next, BAIG also announced a T-Shirt Design Competition to provide passionate designers with the opportunity to design this year's T-Shirts that will be sold during the upcoming merchandise sales. Finally, BAIG organised the Freshmen Welcome Party (FWP) 2023, our second physical orientation programme, to invite incoming BSBA students to join us on an exhilarating line-up of interactive games to foster new friendships and learn more about university life at SUSS.

In this newsletter, the theme "Analysts of Tomorrow" will explore the activities, initiatives, and international experiences that our fellow course mates go through. Through their participation in various activities, our course mates showcase their passions and are equipped with the skills that will help them thrive as future analysts in the workforce.

Analysts of Tomorrow

Student Stewards of Change

Project by BSBA student featured in The Straits Times

Summer School Experiences

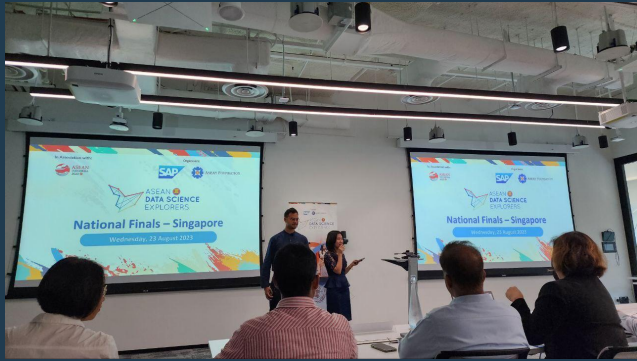**Data Analytics: Unmasking Criminal Networks in the Modern Age**

Official Accounts:

Instagram: Suss_baig

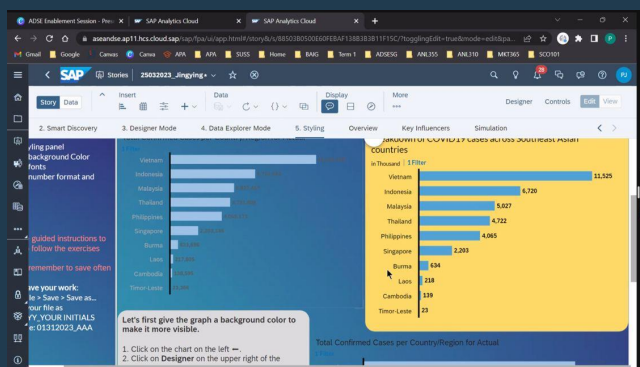LinkedIn: SUSS Business Analytics Interest Group (BAIG)

PREPARED BY: Emmanuel Tiey, Liew Hann Qin, Rachel Sng, Rebecca Gay & Shannon Fernandez

Student Stewards of Change- ASEAN Data Science Explorers Competition (ADSE)

ASEAN Data Science Explorers Presentation Day, Held 23 August 2023

Workshops Held On Zoom

Step into a world where digital literacy meets youthful enthusiasm – the ASEAN Data Science Explorers competition! Orchestrated by the ASEAN Foundation and SAP, this competition provides a platform for students to foster awareness and deepen the appreciation of the ASEAN Community among today's dynamic youth.

With a population exceeding 600 million, ASEAN encounters a spectrum of social, health, and environmental obstacles that cast shadows on its advancement. This competition provides a unique challenge for students: to craft narratives that illuminate these critical concerns using the tool of data analytics.

To enhance the thorough readiness for the competition, a sequence of captivating workshops was organised, in collaboration with BAIG. These skillfully-curated workshops aimed to furnish students with priceless expertise and proficiencies through the utilisation of SAP resources.

Now, let us take a look at what some participants have to say about their experience involving this competition.

A heartfelt congratulations to our participants who have dedicated their efforts to earning a spot in the national finals! We eagerly await the chance to hear their thoughts on the voyage they have taken.

Can you describe your experience of participating in this year's ADSE?

Si Ting: Overall, it was an insightful experience because we got to hear the other teams' presentations. I gained knowledge regarding the different UNSDG(UN Sustainable Development Group) goals that they shared and how they tackled or improved the current situation with the creative solutions that they had come up with.

Chloe: It was an interesting and eye-opening journey participating in this year's ADSE because we got to experience SAP Analytic Cloud hands-on and we were also able to gain insights to how dashboards and business pitch links.

What challenges did you face and how did you manage them?

Si Ting: Since it was our first time using SAP Analytic Cloud to create storyboards, it was pretty challenging to navigate and plot graphs that we intended to create but we managed to find the solutions online.

Chloe: Adding on to Si Ting, it was also challenging to think of solutions that catered to the UNSDG we have identified. However, after a series of discussions, we managed to come out with our final solution which was able to tap on the UNSDG.

What were the most valuable skills or knowledge you gained from the programme?

Chloe: Through this programme, I learned that teamwork is the key to every project we are working on. When there is proper communication between team members, our goals can be reached in a more effective and efficient manner.
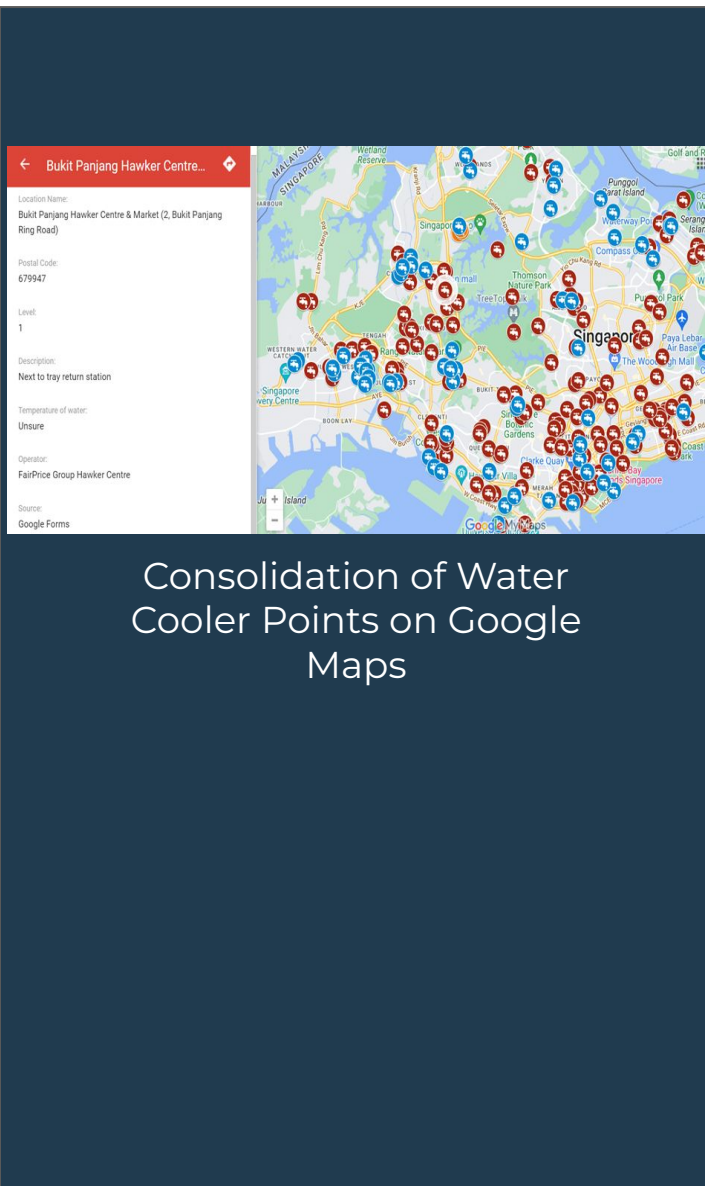
Can you share a memorable experience or moment from your time during this ADSE journey?

Chloe: The most memorable experience was the live presentation during the national finals. We did not expect to make it into the top 10 in Singapore but the day of the presentation was an eye-opening one because we got to pitch our idea to judges of various backgrounds, and we also had the opportunity to see and learn more about the other ideas proposed by other students.

The ASEAN Data Science Explorers competition, orchestrated by the ASEAN Foundation and SAP, serves as a valuable platform for students to deepen their awareness of ASEAN Community issues through data analytics. It encourages youths to tackle pressing social, health, and environmental challenges within the region. The programme not only enhances digital literacy but also fosters teamwork and creative problem-solving skills, as evident from the participants' experiences. We would like to thank Si Ting and Chloe for sharing their insights and congratulate them for their dedication and achievements in this impactful competition. This competition is a crucial step towards addressing the complex issues faced by the ASEAN community and empowering the next generation to drive positive change in the region.

Project by BSBA student featured in The Straits Times

Consolidation of Water Cooler Points on Google Maps

Earlier in March this year, a BAIG member and fitness enthusiast, Tng Ming Kang took on a personal project with the aim of identifying all free water cooler locations in Singapore on a Google Map. The purpose of this venture was to help the public easily locate and access water coolers in unfamiliar areas, as well as encourage Singaporeans to reduce their dependence on bottled water and the usage of canned drinks. The target of this project was to plot at least 150 locations.

To achieve this goal, Ming Kang established a Google form to allow the public to submit details such as longitude, latitude, postal code, street name and building name of the water dispensers' location. Consequently, he enlisted the help of the online community through Reddit to contribute relevant data via the Google Form. Eventually, the collected data was consolidated, verified, and organised into Google Maps by Ming Kang for public viewing.

Singapore Water Dispenser Location

Hello! I am Ming Kang, a first-year student at the Singapore University of Social Sciences (SUSS). I wanted to do something meaningful, hence I decided to crowdsource information from the public about all the water dispensers in Singapore.
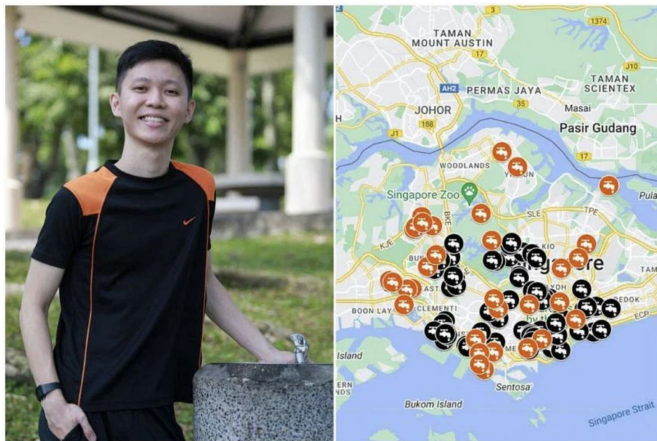
Google Form for Public Submissions

As it was impossible to verify the specific location of every submitted water dispenser, Ming Kang allowed Singaporeans to submit a photo of the water cooler through the Google Form. This allows public viewers to have a clearer idea of the coolers' locations. Furthermore, the data submitted by users may not always be accurate. To reduce the frequency of inaccurate data, viewers who identify errors can communicate them to Ming Kang for rectification.

With the community's support, Ming Kang's project garnered immense public support. The map currently includes over 82 verified and 196 unverified locations. Furthermore, his initiative was featured in The Straits Times on 26 March 2023.

Undergrad seeks public's help to list water cooler points in Singapore on Google Maps

A snippet of The Straits Times article, 26 March 2023

Mr Tng Ming Kang hopes Singaporeans will help to contribute to his project and make his map a more useful one for the public. PHOTOS: RYAN CHIONG, GOOGLE MAPS

In conclusion, Tng Ming Kang's personal project to identify and map free water cooler locations in Singapore has been a commendable effort that demonstrates the power of community collaboration and the desire to promote sustainability. By enlisting the help of the public and using innovative tools like Google Forms and Google Maps, he has not only made it easier for people to access clean drinking water in unfamiliar areas but also encouraged a reduction in the use of bottled water and canned drinks. Despite the challenges faced, including the need to verify submissions and the possibility of inaccurate data, Ming Kang's dedication and the support of the community have resulted in the mapping of over 82 verified and 196 unverified water cooler locations. This project serves as an inspiring example of how individuals and online communities can come together to make a positive impact on society and the environment. Furthermore, the recognition of this initiative in The Straits Times underscores its significance in promoting a more sustainable and accessible water source for all in Singapore. Look at the feature article through this link!

https://www.straitstimes.com/singapore/undergrad-working-on-google-map-listing-free-water-cooler-points-for-public-use-in-singapore

Summer School Experiences

Sean Kwang in Korea

Summer is a season of adventure, and what better way to make the most of it than by embarking on an educational journey that spans borders and cultures? SUSS provides Summer School Exchange Programmes that open doors to a world of possibilities, allowing students to venture beyond their classrooms and experience new academic landscapes at partner universities around the globe.

Imagine spending a summer semester in bustling Tokyo, absorbing the innovative spirit of Silicon Valley, or delving into the rich history of Europe's capitals. With SUSS's partner universities, these dreams become reality!

Let us meet Sean, a Year 2 Business Analytics student who went to Korea for summer school! He attended the Entrepreneurship and Design Thinking classes at Seoul National University, International Summer Programme 2023.

Sean's motivation to learn more about entrepreneurship and his desire to explore Korea led him to this unique summer school program. His most cherished memory from the trip, the evening by the Han River with classmates from around the world, encapsulates the sense of camaraderie and the profound connections that can be forged during these experiences.

For those considering similar programmes, Sean's advice to approach it with an open mind, immerse oneself in local culture, and do some research beforehand is invaluable. Learning the basics of the local language, in this case, Hangul, can enhance the experience, and being open to exploring beyond social media recommendations can lead to unexpected and unforgettable moments.

If you could sum up your experience in a few words, what would they be?

"This Summer Programme in Korea was really a fever dream."

Class outing to Han River

What motivated you to apply for this particular summer school programme?

"My motivation for this programme is that I wanted to learn more about entrepreneurship and simply the fact that it is in Korea."

Could you share some of the most memorable or impactful experiences you had during summer school?

"I think the most memorable moment was during one of the days in the last week of the trip when we organised a mini class outing to the Han River. It was especially memorable because most of our classmates who attended were actually flying back to their respective countries the next day. All of us sat down by the Han River and reminisced about the past month in Korea and how reality would set back in after that week. We spent the night watching the Han River's night lights. It was one of the best nights there."

What advice would you give to someone who is considering to attend the same summer school programme in the future?

"Go with an open mind and enjoy yourself to the fullest! Visit as many places as possible. It's optional but try to pick up some Hangul before going. Try to do your research before visiting certain places; at times, social media recommendations are not really the best."

Sean also said that the trip allowed him to see things differently, and become a more independent person. This trip has allowed him to step out of his comfort zone to befriend people from other countries with common interests. Seoul National University also provided excursion opportunities once a week to places like the DMZ, allowing exchange students to mingle with people from different classes.

In conclusion, SUSS's Summer School Exchange Programmes offer students a transformative opportunity to expand their horizons and enrich their education by experiencing diverse academic environments across the globe. Sean's journey to Seoul National University for the Entrepreneurship and Design Thinking classes during the International Summer Programme 2023 exemplifies the life-changing experiences these programmes can provide.

In Sean's own words, his summer in Korea was a "fever dream," highlighting the extraordinary and dreamlike quality of such adventures. Furthermore, the journey allowed Sean to see the world from a different perspective, fostering independence and friendships with like-minded individuals from various countries. The excursion opportunities provided by Seoul National University further facilitated cultural exchange, reinforcing the notion that these summer school programmes not only offer academic enrichment but also the chance to broaden one's horizons and build lifelong memories. SUSS's Summer School Exchange Programmes truly open doors to a world of possibilities, making summer a season of both adventure and personal growth.
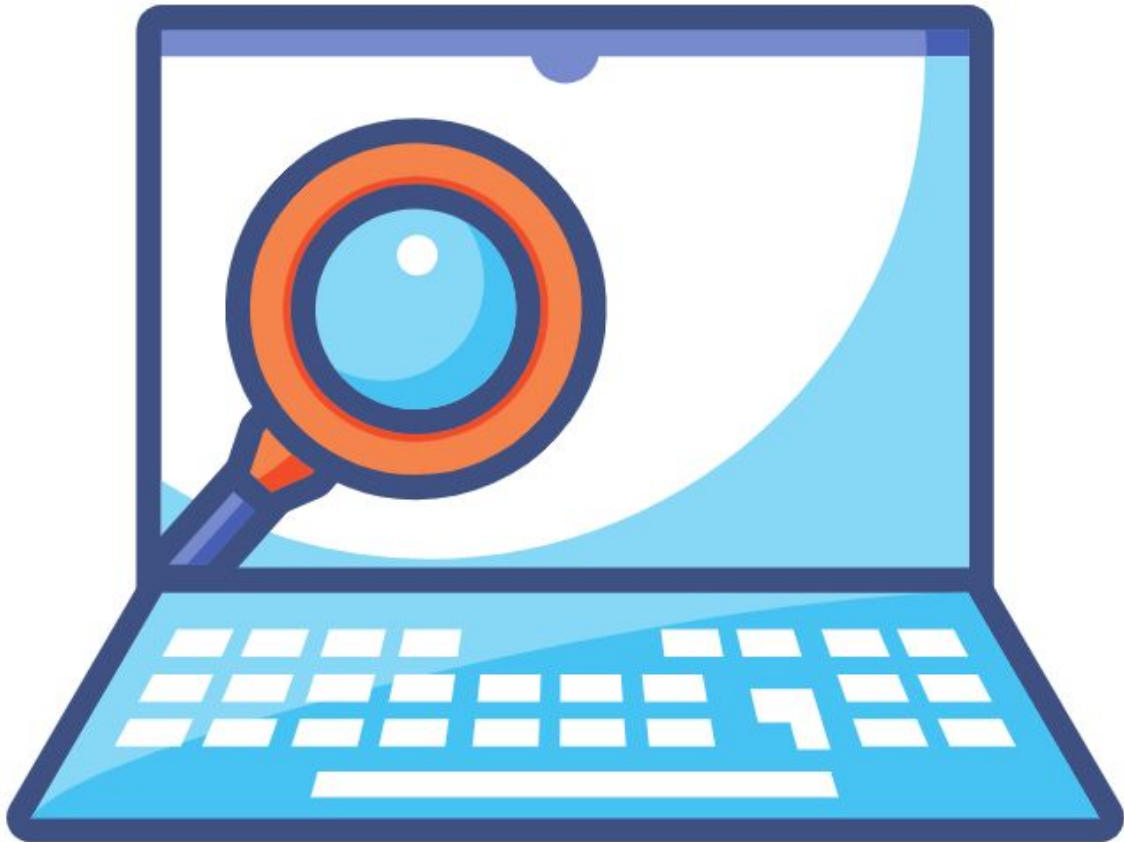

Photo Booth in Korea

Making priceless memories with newfound friends

Data Analytics: Unmasking Criminal Networks in the Modern Age

In the rapidly evolving landscape of global education, where data analytics is gaining prominence, the potential of students in the field of business analytics shines brighter than ever. As we transition into "Analysts of Tomorrow," we take pride in our role as business analytics students and explore how this modern discipline is making waves in unexpected areas.

In 2023, Singapore witnessed a significant event that showcased the incredible power of data analytics. Authorities arrested 11 individuals and seized over $1 billion in assets as part of a far-reaching money laundering scandal. The suspects faced allegations of orchestrating a sophisticated web of shell companies and cryptocurrency exchanges, through which they funnelled ill-gotten gains from various sources, including fraud, corruption, and drug trafficking.

At the heart of this investigation was data analytics, a game-changing tool. The authorities harnessed data from diverse sources, encompassing financial records, telecommunications data, and social media activity, to meticulously trace the flow of funds and pinpoint the culprits. Additionally, data analytics uncovered patterns of suspicious behaviour, such as substantial transfers between shell companies and frequent interactions with cryptocurrency exchanges.

This groundbreaking use of data analytics signifies a monumental stride in the ongoing battle against money laundering. It vividly illustrates the potency of data in recognizing and dismantling criminal networks. Moreover, it underscores that law enforcement agencies are increasingly turning to data analytics to investigate intricate financial crimes.

Let us delve into some specific ways in which data analytics played a pivotal role in this investigation:

Financial Data Analysis: Authorities meticulously scrutinised financial records from banks, cryptocurrency exchanges, and other financial institutions. This deep dive enabled them to meticulously track the movement of funds, ultimately leading to the identification of the suspects and the intricate web of companies they employed for money laundering.

Telecommunications Data Analysis: The investigation also tapped into telecommunications data, encompassing phone calls, text messages, and emails, to unravel the identities of the suspects and their associates. This wealth of data not only constructed a timeline of the suspects' activities but also unveiled the methods employed in the money laundering process.

Social Media Analysis: Social media activity was not overlooked; it played a crucial role in identifying the suspects and their networks. This analysis shed light on the motivations driving the suspects and the intricate webs they were entangled in.

The outcome of this investigation reverberated as a resounding success. Data analytics empowered the authorities to pinpoint and disband a massive money laundering operation, sending a clear message to wrongdoers that law enforcement is harnessing the might of data analytics in the pursuit of financial justice.

As data analytics continues to evolve and advance, we can anticipate its increasing efficacy in the relentless fight against money laundering and other complex financial crimes. This modern age promises exciting prospects, especially for students of business analytics, who have the opportunity to shape the future of this dynamic field.

Let us embrace this exciting era of data analytics in global education, knowing that our contributions as business analytics students can have a far-reaching impact on shaping a brighter and more secure future for all.

Mini Python Challenge

Write a Python function that checks if a given positive integer is a prime number. A prime number is a positive integer greater than 1 that is divisible by only 1 and itself.

Your function should be named `is_prime` and should take one argument, `num`, which is the positive integer to be checked.

For example:
```
result1 = is_prime(7)
print(result1)  # Should print True because 7 is a prime number.

result2 = is_prime(10)
print(result2)  # Should print False because 10 is not a prime number.
```

Ensure that your function handles various positive integers and correctly identifies whether they are prime or not.

Try to solve this challenge efficiently, considering prime numbers can be large.

Solution to Mini Python Challenge (June 2023 Issue)

```python
def string_match(a, b):
    # Initialize a count variable to keep track of matching substrings
    count = 0

    # Determine the minimum length between the two strings
    min_len = min(len(a), len(b))

    # Iterate through the strings up to the second-to-last character
    for i in range(min_len - 1):
        # Check if the current two characters in both strings match
        if a[i:i+2] == b[i:i+2]:
            count += 1

    return count
```

```python
print(string_match('xxcaazz', 'xxbaaz'))
print(string_match('abc', 'abc'))
print(string_match('abc', 'axc'))
```

```
3
2
0
```