

Digital Talent Snapshot In Malaysia

Q4 2021



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- LinkedIn Talent Insights (extracted and analyzed based on 969 digital job titles)
- Key Statistics of Labour Force in Malaysia, November 2021, DOSM (page 1 and 9)
 - <https://bit.ly/labourdasm2021>
- MDEC Research and Tracking of Digital Vacancies across 5 job portals
 - <https://www.linkedin.com/>
 - <https://www.jobstreet.com.my/>
 - <https://www.monster.com.my/>
 - <https://malaysia.indeed.com/>
 - [https://www.jobstore.com/my](https://www.jobstore.com.my)

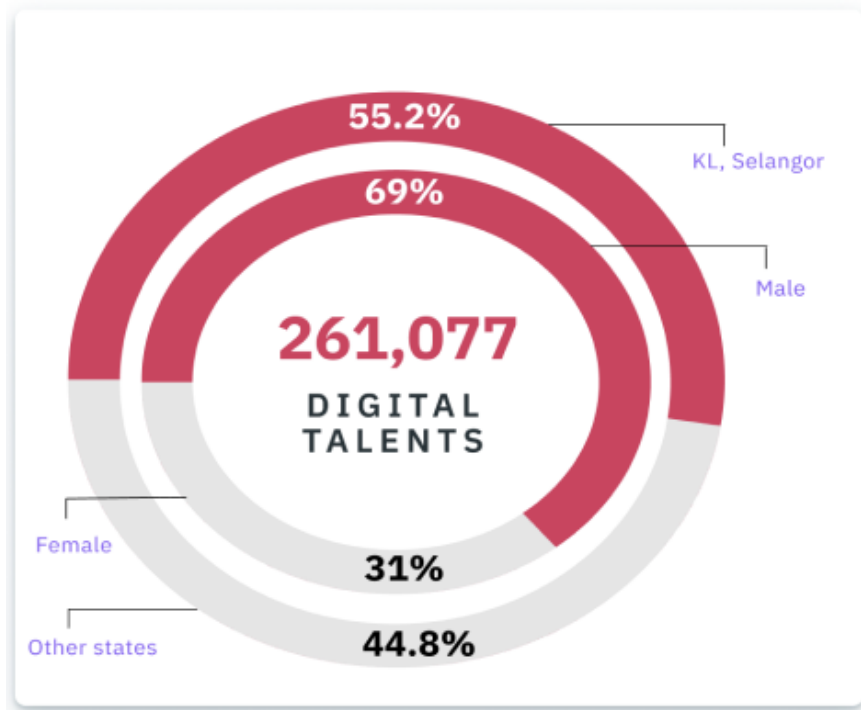
Talent Overview

261,077

total number of digital talents in Malaysia with a LinkedIn profile

4.3%

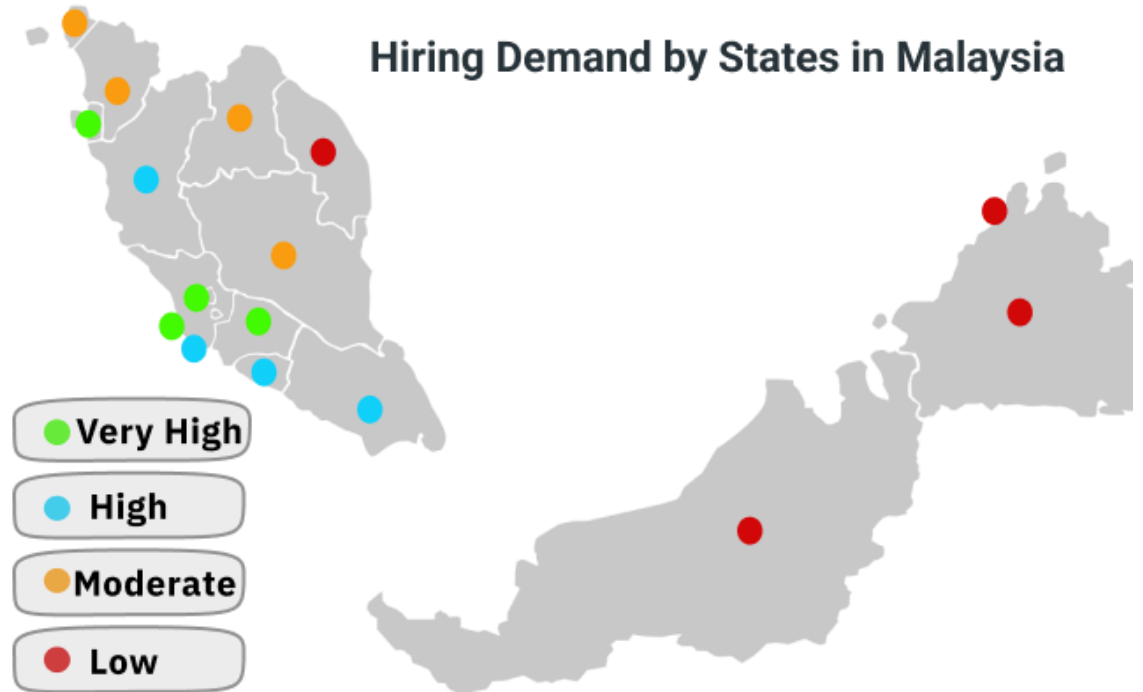
Unemployment rate dipped to the lowest rate based on Labour Force Malaysia November 2021, DOSM



The total number of digital talents increases significantly from Q1 to Q2 and continue to remain stagnant in Q3 and Q4.

Source: LinkedIn Talent Insights; DOSM

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For the past 3 quarters, Penang, Johor and Malacca had been identified as states with potential hiring of digital. In Q4, Ipoh emerged in this category as well.

Digital Talent Supply (Q4, 2021)

Georgetown, Penang - 22,411

Johor Bahru, Johor - 11,149

Ipoh, Perak - 4,519

Non-traditional ICT Industries Continues to have High Hiring Demand for Digital Talents Throughout 2021

Top 10 Industries with Hiring Demands



Non-traditional ICT industries had been having very high hiring demand for digital talents throughout 2021. In **Q4**, **Staffing and Recruiting** emerged in the top 10 industries in this list.

Industries with Highest Digital Talent YoY Growth

1. **Commercial Real Estate** (+7%)
2. **Computer Games** (+6%)
3. **Aviation and Aerospace** (+6%)
4. **Information Services** (+6%)
5. **Financial Services** (+6%)
6. **Internet** (+5%)
7. **Government Relation** (+5%)
8. **E-learning** (+5%)
9. **Tobacco** (+5%)
10. **Investment Management** (+5%)
11. **Medical Device** (+5%)

Throughout 2021, many **non-ICT industries** had been hiring **digital talents** including the likes of **Tobacco, Renewables & Environment and Biotechnology**. In Q4, Commercial Real Estate emerged as another non-ICT industry with the highest digital talent growth YoY. This shows that these sectors are embarking in accelerating digitilisation.

Data Science Topped the Chart of the Fastest Growing Job Titles



Fastest Growing Digital Job Titles (YoY)

Malaysia

- 1. **Data Engineer** (+20%)
- 2. **Data Scientist** (+18%)
- 3. **Front End Developer** (+18%)
- 4. **Digital Specialist** (+13%)
- 5. **Data Analyst** (+13%)
- 6. **Junior Engineer** (+10%)
- 7. **Software Testing Engineer** (+10%)
- 8. **Full Stack Engineer** (+9%)
- 9. **Test Technician** (+8%)
- 10. **Support Specialist** (+8%)

South East Asia

- 1. **Data Engineer** (+20%)
- 2. **Associate Software Engineer** (+19%)
- 3. **Back End Developer** (+16%)
- 4. **Mobile Engineer** (+12%)
- 5. **Front End Developer** (+12%)
- 6. **Data Scientist** (+11%)
- 7. **Social Media Marketing Specialist** (+10%)
- 8. **Digital Specialist** (+10%)
- 9. **Social Media Manager** (+10%)
- 10. **User Interface Designer** (+9%)

Asia

- 1. **Assistant System Engineer** (+43%)
- 2. **Software Engineer Intern** (+41%)
- 3. **Associate Software Engineer** (+30%)
- 4. **Data Engineer** (+24%)
- 5. **Back End Developer** (+18%)
- 6. **Application Developer** (+17%)
- 7. **Junior Software Engineer** (+14%)
- 8. **Lead Software Engineer** (+11%)
- 9. **DevOps Engineer** (+11%)
- 10. **Data Scientist** (+10%)



Data Science roles continues to be high in demand in Q4 with the top 2 fastest growing job titles in Malaysia being Data Engineer and Data Scientist.

Data Analytics Continues to Lead the Fastest Growing Skills

Fastest Growing Skills (YoY)

Malaysia

1. **Data Analytics** (+73%)
2. **React.js** (+44%)
3. **Analytical Skills** (+37%)
4. **Python** (+36%)
5. **Finance** (+32%)
6. **Information Technology** (+31%)
7. **Amazon Web Services** (+29%)
8. **Computer Science** (+27%)
9. **Adobe Premiere Pro** (+26%)
10. **Data Entry** (+26%)

South East Asia

1. **Data Analytics** (+80%)
2. **Finance** (+50%)
3. **Design** (+46%)
4. **React.js** (+42%)
5. **Back End Web Development** (+42%)
6. **Front End Development** (+39%)
7. **Information Technology** (+38%)
8. **Data Entry** (+36%)
9. **Analytical Skills** (+35%)
10. **Machine Learning** (+34%)

Asia

1. **Data Analytics** (+99%)
2. **Microsoft Azure** (+84%)
3. **React.js** (+61%)
4. **Angular** (+56%)
5. **Finance** (+55%)
6. **Front End Development** (+52%)
7. **Data Science** (+49%)
8. **Information Technology** (+47%)
9. **Software Testing** (+46%)
10. **Analytical Skills** (+46%)



In Q4, the **fastest growing skills across region is Data Analytics** with significant percentage. In Malaysia, it is observed that React.js had risen very quickly into the top 10 list this quarter, following the trend from SEA and Asia from the past 2 quarters.

Analytical Skills Has Been The Most Common Skill Required for Much of 2021

Common Skill Requirements in Digital Job Vacancies

Malaysia

1. Analytical Skills
2. Computer Science
3. Software Development
4. Engineering
5. SQL
6. Programming
7. Javascript
8. Cloud Computing
9. Java
10. Information Technology

South East Asia

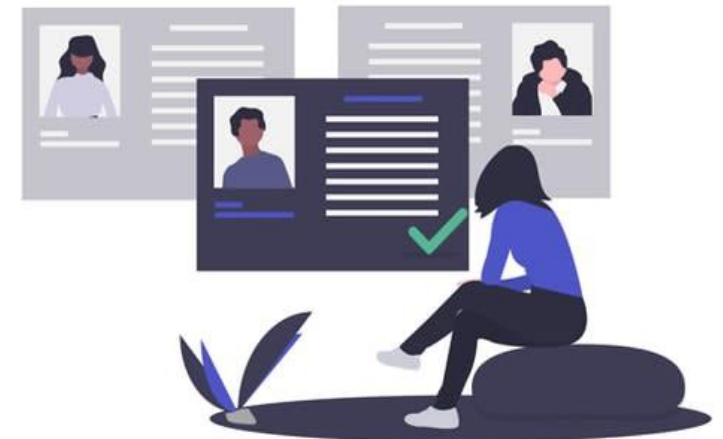
1. Software Development
2. Analytical Skills
3. Engineering
4. SQL
5. Programming
6. Javascript
7. Design
8. Java
9. Cloud Computing
10. Python

Asia

1. Analytical Skills
2. Software Development
3. Engineering
4. Java
5. Programming
6. SQL
7. Javascript
8. Cloud Computing
9. Python
10. Computer Science



The most required skill for digital talents in **Malaysia** and **Asia** remains as **Analytical Skills**. However, for **Southeast Asia**, **Software Development** appears to be most required in Q4.



Fastest Growing Skills for Fresh Graduates include Design, Finance and Data Visualisation Tools

Skills Analysis

	Fresh (< 2 years)	Experienced (> 2 years)
Most Common Skills	<ol style="list-style-type: none">1. Python2. Java3. Engineering4. C++5. Javascript6. Adobe Photoshop7. HTML8. Software Development9. SQL10. Cascading Style Sheet	<ol style="list-style-type: none">1. Engineering2. SQL3. Software Development4. Adobe Photoshop5. Troubleshooting6. Technical Support7. Javascript8. Graphic Design9. Java10. Information Technology
Fastest Growing Skills	<ol style="list-style-type: none">1. Canva2. Finance3. Data Analytics4. Tableau5. Programming Languages6. Engineering7. Power BI8. Digital Marketing9. Logo Design10. Social Media Marketing	<ol style="list-style-type: none">1. Data Analytics2. Information Technology3. Analytical Skills4. AWS5. Finance6. Python7. Operations Management8. Video Editing9. Digital Marketing10. Agile Methodologies



Designing platform **Canva** together with **Finance** are the **fastest growing skills for fresh graduates**. Other skills in this category worth mentioning are **Social Media Marketing, Logo Design and Digital Marketing**.

Comparatively, **Analytical Skills** (including data analytics) are the **fastest growing skills amongst experienced digital talents**.

Summary of Achievements 2021 – MDEC's Digital Talent Initiatives



K-12



98,617
students impacted

11

Digital Maker
Hub (DMH)

39

Continuous
Professional
Development
Centres (CPD)

6,113

Master
teachers
trained

250

School
counselors
trained



Tertiary



14,465
new students
enrolled

780

PDTI
lecturers
trained

16

IHLs

PDTI Achievements

- **95%** graduates employability rate
- **76%** increase in student intake in 2021 compared to 2017

Summary of Achievements 2021 – MDEC's Digital Talent Initiatives **MDEC™**



Workforce

**#MyDigital
Workforce**

1,569
workforce trained

283

job placements via
#mydigitalworkforce
MYWiT

164

courses added in
the Digital Skills
Training Directory

Focus Areas include:

- Data Science
- Cybersecurity
- Animation
- Game Development
- Software Development
- Digital GBS
- Fintech
- Digital Marketing



Informal
Workforce

62,578
Informal workers
trained



RM 1.49 Bil

income generated
via eUsahawan,
eRezeki & GLOW
Programs

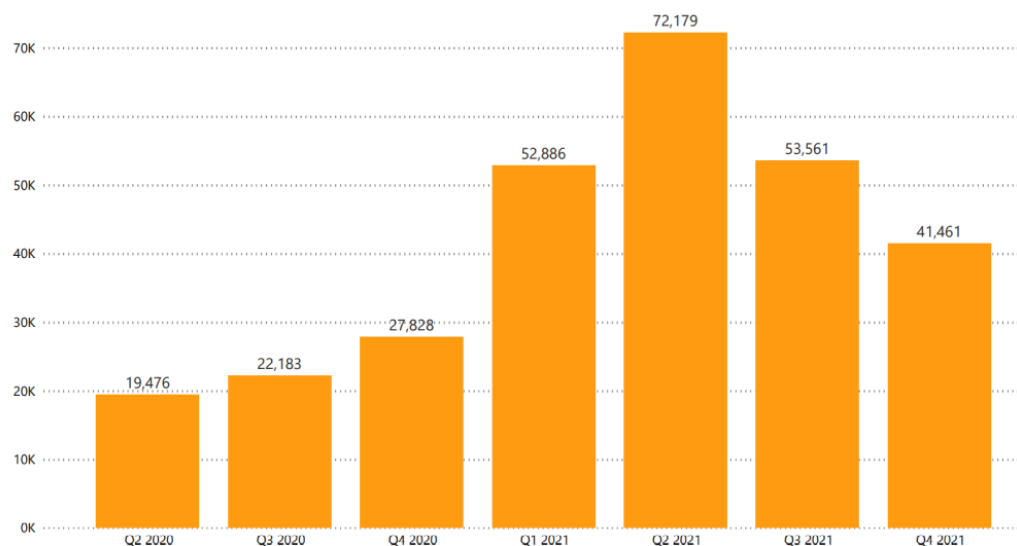
330,877

Number of
informal workers
who earned
income

Overall Digital Jobs Have Increased Over the Past Year in Malaysia

Continuous monitoring needed on the decline over Q3-Q4 of 2021

Total Digital Jobs, Dec 2020 - Dec 2021



Digital Job Group	LinkedIn	JobStreet	monster	indeed	JOBSTORE	Total	Growth Since Q3
	9,469	10,142	2,425	17,005	2,420	41,461	-22.59%
Software/ Hardware Development (incl Data Science)	3,946	4,800	741	5,611	1,342	16,440	-48.13%
IT Services	2,321	686	191			3,198	-70.47%
Cybersecurity/ Networking	242	891	82	3,146		4,361	-5.67%
Outsourcing	1					1	-99.73%
Creative Content/ Design	2,760		40	1,073	288	4,161	143.76%
Engineering (Electrical & Electronic)	199	3,147	469		790	4,605	-16.58%
E-commerce		618	902	7,175		8,695	4.26%
Total Jobs	40,387	80,928	15,878	85,724	7,514	230,431	19.09%
Fresh Hires	3,797	3,916	1,014	1,105	446	10,278	-42.9%
Internship	497	1,156		1,055	10	2,718	-7.56%
Experienced Hires	5,175	5,070	1,411	14,845	1,964	28,465	-13.31%

Source: MDEC research and tracking of digital job vacancies across 5 prominent job portals in Malaysia

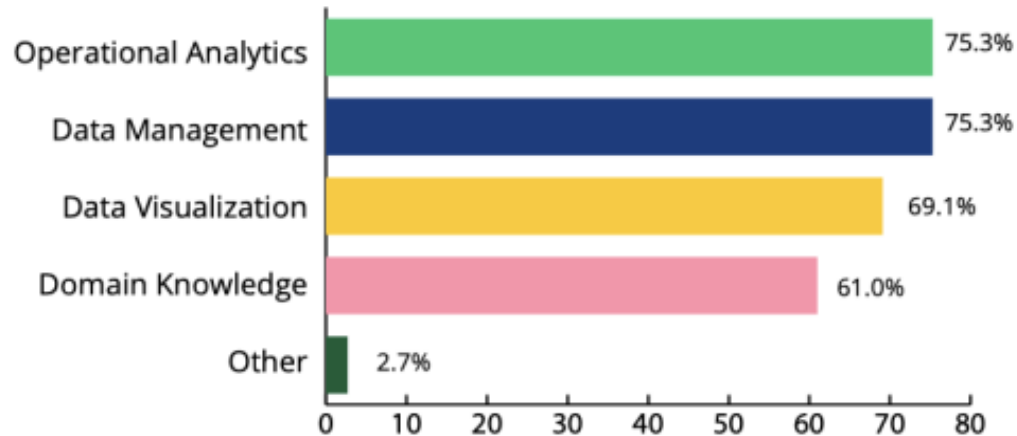
- Total digital jobs **increased by about 49%** from 27,828 in December 2020 to 41,461 jobs in December 2021.
- The reduction of digital jobs in Q4 2021 compared to Q2 2022 was primarily due to the **general decrease of total digital jobs published on LinkedIn**.
- 25% of all digital jobs are for Fresh Hires.
- **Job groups with the highest growth of digital job vacancies since Q3 2021 are Creative Content/Design (+143.76%) and eCommerce (+4.26%).**

Data Analytics and Algorithms are Essential skills over the next 5 years

Operational Analytics and Data Management should also be mastered to succeed

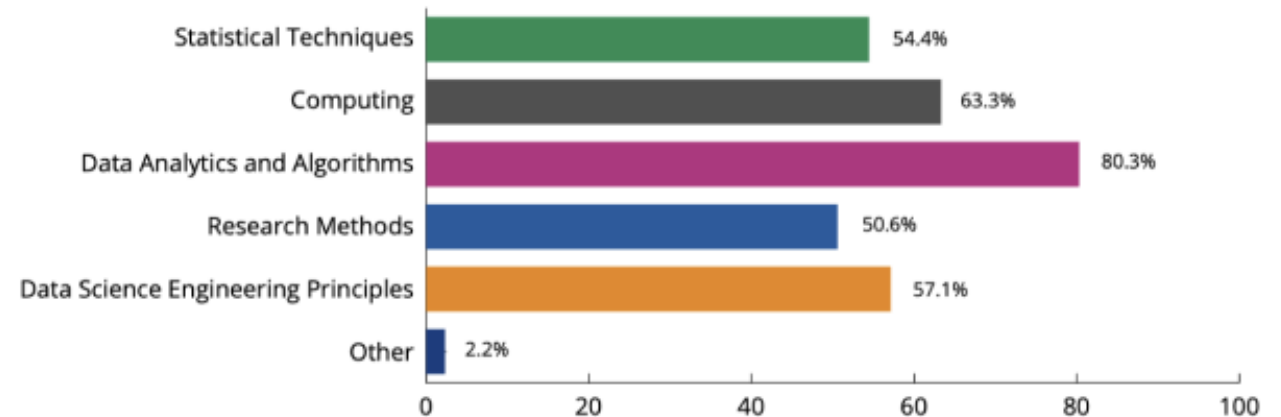
What business and organizational skills will employees need to succeed in the workplace in the next five years?

Source: Wiley Digital Skills Gap Survey (APEC economies)



What technical skills will employees need to succeed in the workplace in the next five years?

Source: Wiley Digital Skills Gap Survey (APEC economies)



Source: Wiley Digital Skills Gap Index 2021 (<https://www.wiley.com/network/latest-content/digital-skills-gap-index>)

Critical Soft Skills in 2021 include Assertiveness and Diversity & Inclusion

Fastest growing skills in communication, teamwork, leadership & management

Top 5 surging communication & teamwork skills, 2021

Assertiveness

250%

Facilitation

148%

Team building

129%

Business writing

104%

Critical thinking

96%

Percentage consumption growth compared from 2020 to 2021

Top 5 surging communication & teamwork skills, 2017-2021

Microsoft Teams	760%
Assertiveness	602%
Listening skills	530%
Business writing	415%
Critical thinking	340%

Percentage consumption growth compared from 2017 to 2021

Top 5 surging leadership & management skills, 2021

Diversity and inclusion

205%

OKR

184%

Strategic thinking

119%

Problem solving

108%

Management coaching

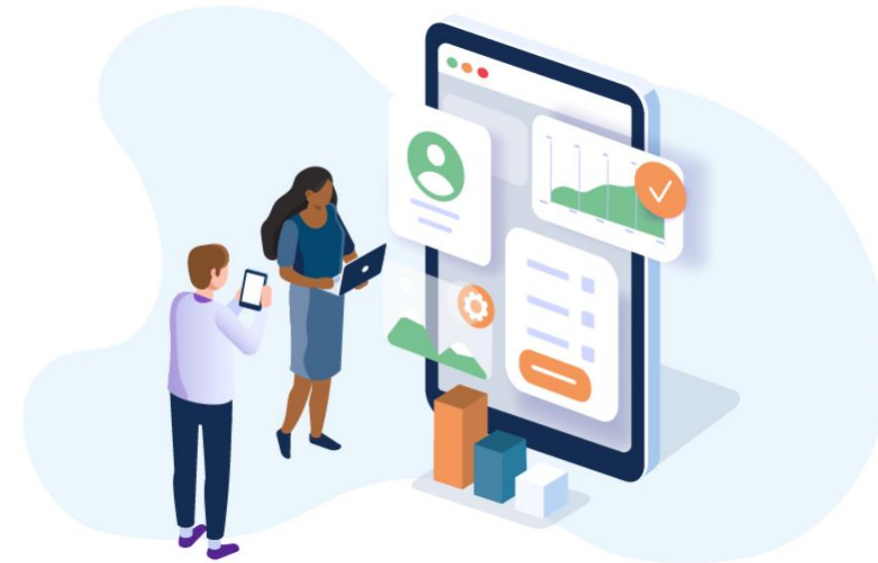
108%

Percentage consumption growth compared from 2020 to 2021

Top 5 surging leadership & management skills, 2017-2021

Strategic thinking	331%
Diversity and inclusion	324%
Mentoring	276%
Design thinking	208%
Problem solving	205%

Percentage consumption growth compared from 2017 to 2021



Top 3 Fastest Growing Skills in 2021 were Product Design, Plotting Data and UX Design

All are expected to grow or stay popular in 2022

Fastest Growing Digital Skills


Rank for skills of 2022	Skill name	Rank Change (how many "slots" this skill moved up between start & end period)
1	Product Design	+71
2	Plotting Data	+69
3	User Experience Design	+54
4	Statistical Visualization	+50
5	Security Strategy	+45
6	Cloud Infrastructure	+42
7	Supply Chain Systems	+41
8	Social Media	+41
9	Operations Management	+38
10	Business Process Management	+37

* Start period = October 1, 2019 - September 30, 2020
End period = October 1, 2020 - September 30, 2021



Terima Kasih
Thank You
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