2019 MASTER THE MAINFRAME CONTEST REGISTRATION

Fall 2019

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1.0 Introduction to 2019 Master the Mainframe Contest

The Master the Mainframe contest is a FREE online contest and learning management designed to introduce or improve mainframe awareness and hands-on skills around the world. No experience with mainframes is necessary. **In fact, MTM is designed for students with little or no computer experience.**

High school and college students from over 38 countries on six continents compete, gaining real-world enterprise computing experience. This competition is sponsored by the IBM z Systems Academic Initiative, which has provided mainframe training and curriculum resources to students at more than 1,000 schools in 70 countries. Students or faculty just need to bring drive and competitive spirit to learn IBM z Systems mission-critical enterprise technologies.

This MTM 2019 contest web site will provide contest education materials and online references as appropriate for each MTM Contest Challenge. **A MTM Contest Challenge is a hands-on Mainframe Skills requirement.** The contest challenges varies from introductory/easy to apply to challenging.

2.0 2019 Registration and MTM Contest Web Sites

2019 MTM Registration Web Site: All Master the Mainframe participants MUST FIRST register for Master the Mainframe to access the MTM Contest.at **https://masterthemainframe.com/**

> ➢ If a student is enrolled in a course, which introduces mainframe skills, or have registered for an IBM IT Career Connection event, this student is still required to complete the Master the Mainframe Contest registration process. Your MTM registration will email your individual MTM useriid and access directions within 30 minutes. .

> ➢ If you do not receive your MTM registration confirmation email within 30 minutes, 1) check your email client's SPAM folder, or 2) email zskills@us.ibm.com.

2019 MTM Contest Web Site: You may review the 2019 Master the Mainframe Challenges and organization without registration at **http://mtm2019.mybluemix.net** Anyone can visit the 2019 Master the Mainframe Contest web site, however, without a MTM userid one cannot access the MTM Contest mainframe and complete the challenges.

> ➢ Any student, teacher, professor, z System professional, or recruiter may visit the contest web site so that they may appreciate the quality of the educational challenges that MTM participants will experience.
> ➢ Students who successfully completes Part 1, Part 2, or Part 3 should recognize those accomplishment on their resume and list this **2019 MTM Contest Web Site**: link for further information

Master the Mainframe Facebook page may be found at
https://www.facebook.com/MasterTheMainframe

Contest Question & Answer Slack Channel **https://mtmcompetition.slack.com/**

Additional questions may be emailed to **zskills@us.ibm.com**

3.0 MTM Registration Process

Step 1. Enter https://masterthemainframe.com/

Step 2. Click on REGISTER NOW

Step 3. Click on start for Step One Registration

Step One Registration for Master the Mainframe 2019

start press ENTER

Step 3. Answer the Step 1 Registration Questions (13 Questions)

> 1 → **1/13**
> Are you over 13 years of age? *
>
> [A] Yes   [B] No

Only students above the age of 13 may compete in the Master the Mainframe Contest.

> 2 → **2/13**
> Are you a student? *
>
> [A] Yes   [B] No

If you are a faculty member or other individual associated with an educational institution at the time of registration and will use an .edu email domain to register, click on student for this question.

> 3 → **3/13**
> Do you agree to our Participation Agreement here:
> http://bit.ly/MTM2019PA *
>
> [A] Yes   [B] No

Accepting this Participation agreement indicates 1) your understanding that participant eligibility of this contest is limited to accredited education programs, 2) acceptance of the contest code of conduct, and 3) acceptance of the listed procedures used judge the successful completion of the challenges, awarding of contest prizes, and judging contest winners.

> 4 → **4/13**
> **Marketing Permissions**
> Data you submit on this form will be used to contact you about your participation the Master the Mainframe Competition. By submitting this form I agree that AngelHack may process my data in the manner indicated above and as described in AngelHack's Privacy statement: https://angelhack.com/privacy-policy * *
>
> [A] I Accept   [B] I Don't Accept

It is recommended to review the AngelHack's Privacy statement. If you do not accept AngelHack's Privacy statement AngelHack will protect the privacy your data for external parties, which may include your teacher, instructor, or other external web sites. If you accept AngelHack's Privacy statement, and may change your mind, you may revoke your acceptance at any future time

> 5 → **5/13**
> What is your first name? *
>
> Type your answer here...

6 → 6/13
What is your last name? *

Type your answer here...

7 → 7/13
What email do you check most often? *

Type your email here...

8 → 8/13
What is your age? *

Type your answer here...

The data collected concerning your age will only be used for analysis of performance of the age of anonymous participants. Your age must be 13 years or higher

9 → 9/13
What is your gender? *

| A | Male | | B | Female |
| C | Decline to State |

The data collected concerning your gender will only be used for analysis of performance of the age of anonymous participants

10 → 10/13
What country do you live in? *

Type or select an option ⌄

United States
Uruguay
Uzbekistan
Vanuatu
Venezuela

It is recommended to use the drop box and select the correct country name. For example, USA will not be not an acceptable abbreviation of United States.

11 ➜ *11/13*
Where did you hear about this competition? *

Type or select an option ⌄

Participated Last Year
Friend
angelhack.com/events
IBM's Website
Facebook
Twitter
Professor/Teacher
MTM Workshop
Other

12 ➜ *12/13*
Would you like to hear more about AngelHack events in future? *

A	Yes		B	No

13 ➜ *13/13*
Would you like to be contacted by IBM, their clients and business partners for career opportunities? *

A	Yes		B	No

It is recommended to select the Yes option. If you finish Part 3 of Master the Mainframe, you will most likely be contacted for career opportunities. If you complete and Finish Part, you may be contacted. When finished answering the question slick on Submit

Submit   press ENTER

Confirmation Message

Congratulations! You've completed the **first step** of the Master the Mainframe Registration. All that's left is to click the button below and fill out your final information on IBM's website.

Please note, your registration is not final until you fill out the next form, so make sure to finish your registration below!

f **𝕏** **in**

Finish Your Registration   press ENTER

Step 4. Enter the Following Information to be Emailede a MTM Userid

IBM Master the Mainframe Registration

Please complete the following registration form

The fields indicated with an asterisk (*) are required to complete this transaction; other fields are optional. If you do not want to provide us with the required information, please use the "Back" button on your browser to return to the previous page, or close the window or browser session that is displaying this page.

Information

First Name:*

Last Name:*

E-mail Address:*

Confirm E-mail Address:*

Country:*   Select

Street Address:*

City:*

Postal Code:*

School:*   Select

Please select Other if your University is not listed and you will be able to add the name.

Social Media Profile:

Notice and Choice

IBM may use my contact data to keep me informed of products, services and offerings:

✔ by email.
✔ by telephone.

You can withdraw your marketing consent at any time by sending an email to netsupp@us.ibm.com. Also you may unsubscribe from receiving marketing emails by clicking the unsubscribe link in each such email.

More information on our processing can be found in the IBM Privacy Statement. By submitting this form, I acknowledge that I have read and understand the IBM Privacy Statement.

Also, I understand that IBM may take group photos or perform live streaming during the event for promotional purposes.

Terms and Conditions

☐ I acknowledge that I have read and understood IBM's → Privacy Statement as well as the → Terms and Conditions*

Submit

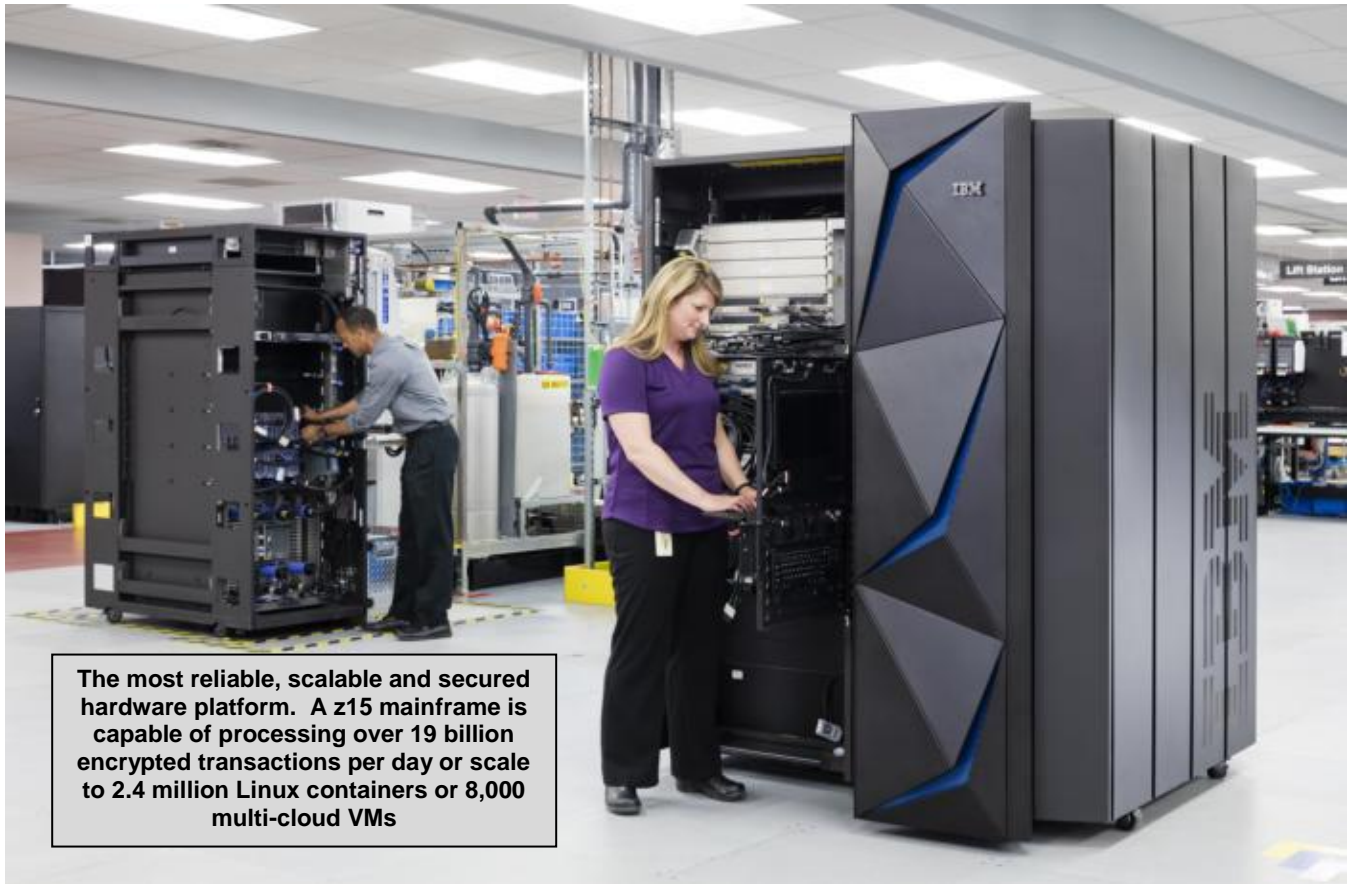To understand IBM's Code of Conduct for events click here:
→ IBM Code of Conduct.

IBM may use tracking technology at this event. To learn more click here:
→ IBM use of tracking technology.

Registration submitted

Your registration has been received. Please do not register multiple times as this can cancel your registration. You'll receive further information via e-mail within 1 business day. Good luck in the contest!
Return to homepage

4.0 What is a z System Mainframe?

What is a z System Mainframe? A mainframe is the most powerful, reliable and secure, backend, server technology that processes major credit cards, commercial banks, online retail services, insurance, investments, pension companies, and federal, state and local government transactions. If a requirement is to support large-scale transaction processing with the BEST cyber security protection, then the most likely backend server technology connected to your cell phone, laptop, personal computer, or other interface will be a MAINFRAME.

The most reliable, scalable and secured hardware platform. A z15 mainframe is capable of processing over 19 billion encrypted transactions per day or scale to 2.4 million Linux containers or 8,000 multi-cloud VMs

The "z" in z Systems means zero downtime. The new z15 platform provides 40-terabytes of RAID (RAM), 190 configurable processor cores running at 5.2 ghrtz to support state-of-the-art real-time, data analytics using Python, Hadoop and Spark, SAS, R or SPSS. While the z14 introduced Pervasive Encryption (encrypt everything with 2% increase in overhead), the z15 introduced Data Privacy Passports which will protect data not only on IBM Z, but across multi-cloud environments without application changes.

1.1 z System Mainframe Servers Dominate Large-scale Transaction Processing

IBM's z System technologies dominate U.S. and World's large-scale transaction processing, big data and data analytics, web and mobile access workloads. For example, z System Mainframe servers processes 81% of financial, insurance and banking transactions; 94% of ATM transactions, 96% of credit card transactions, Apple Pay, 100% of airline reservations, 100% of IRS 1040 processing and social security payments, 81% of NASA mission management, 70% of wealth management services; 69% of heath are processing, 62% of major retail transactions, and 64% of the state and federal governments transactions. Due to its transaction and encryption performance, the z System Mainframe Server is expected to dominate future block chain transactions and Internet of Things (IoT) architectures

Consider the use of your mobile device to purchase some product online at Walmart. Behind your user interface and shopping cart, the Walmart z Systems servers processes hundreds of inventory look up programs and database accesses, generation of dynamic web pages (what you see), calculations to update the purchase transactions, to interact with credit card companies in a secured environment.

The list of z Systems backend organization and services, which you may have previously accessed without your knowledge, would take hours-and-hours to discuss. However, if you have accessed or used:

- ➢ A major retailer (Walmart, Home Depot, Macey's), or
- ➢ A major commercial bank (PNC, Bank or America, Well Fargo, Chase, Citizen), or
- ➢ Aa major credit card company (VISA, Master Card), or
- ➢ A major insurance company (State Farm, Gieco, All State),
- ➢ Most major Health Care Systems, Health Care Insurance company, or
- ➢ Most 401k providers, or
- ➢ Most major federal, state or military government or agencies …

You are already a z System User.

A few major Fortune 1000 companies do not rely on z Systems for most large-scale, mission-critical services. These companies include Google (Alphabet), Amazon, Facebook, Microsoft, and Dell.

1.2 Every Second IBM CICS processes 1.2 Million Transactions

In 2019, every second there are 6,900 tweets, 30,000 Facebook likes and 60,000 Google searches. However, the IBM CICS application server, which runs on the IBM mainframe, processes 1.2 million transactions per second across the internet.

1.3 Major Corporate and Government Entities Who Rely on z System

A selection of **major corporate entities** who rely on z System for mission-critical computing functions include: USAA, Aetna, Fidelity, TIAA-CREF, Met Life, J.P. Morgan Chase, Citi Bank, Bank of America, J.P. Morgan Chase, Wells Fargo, Rocket Mrtgtage, Bank of America, Citi Bank, Vanguard, Boeing, Blue Cross/Blue Shield, Walmart, Federated Department Stores, BNY/Mellon, as well as, the majority of the Fortune 500 global corporations.

A selection of **major government entities** who rely on z System for mission-critical computing functions include the FBI, CIA, NSA, DOD (Department of Defense), IRS, SEC, SSA (Social Security Administration), Medicare, and most major state, county and municipal government agencies.

Many Intel, HP, Apple, Microsoft, Dell, Linux and UNIX technologies are NOT in direct competition with z System technologies since these technologies are often designed for different target markets, functions or scale. For example, ***Walmart, the largest U.S. Corporation in 2016, integrates z System servers with Intel, HP, Apple, Microsoft, Dell, Linux and UNIX technologies. This lesson introduces these computer integration technologies.***

1.4 z System Mainframe Servers are critical to the World Economy

Imagine a life without Google, Facebook, LinkedIn, tweeting or texting? While many individuals may not enjoy a world without social media, can the real world economy survive without social media? The answer is YES. For example, instead of searching Google, consider the possibility that my students can visit the library to research? Hmmm! Visit a Library? What an innovative suggestion!

Without a world using Facebook, consider the possibility that my students may talk or share life experiences face-to-face? Hmmm! Communicating face-to-face? What an innovative suggestion!

However, the previous data suggests that without z System mainframes there is no alternative computer platform available that can securely and reliably (zero downtime) process 1.2 million mission-critical business transactions per second, of each minute, each hour, each day, and each year. Without mainframes the World Economy will never be the same.

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5.0 Master the Mainframe (MTM) Contest Challenges

The MTM contest challenges will change each year. While many of the MTM Challenges will be similar to the previous year, other contest challenges will be rotated, changed to reflect new computer technologies and new theme for the "Real World" Challenge project in Part 3 .

The MTM contest challenges are organized into three parts**: Part 1: Learn the Basics, Part 2: Practice and Learn, and Part 3: Real World Challenge**. The contest provides hands-on skills challenges with of level of difficulty ranging between entry-level to advance. **Part 2 and Part 3 Hands-on mainframe skills includes: z/OS (the mainframe operating system), JCL, UNIX, Linux, COBOL, JAVA, C/C++, Assembler, Rexx, z/OS Security Servers, DB2 relational databases and SQL.**

6.0 Master the Mainframe Digital Badges

The award of an IBM MTM digital badge should be displayed on any resume or application for higher education. IBM MTM digital badge recognizes the participant's ability to learn high-level, hands-on mainframe technology skills. Contest participants who have completed the MTM skills requirements, will be contacted and awarded a Digital Badge.

Earning your IBM Digital Badge will qualify you for IBM's Talent Match program. IBM Talent Match is provides employers the chance to search for the holders of a certain digital badge. The search not only returns numbers per country. It even allows the employer to contact the badge holder. The badge holder must agree to get contacted. And even in the case he agrees the contact is anonymous. The badge holder gets a request from the company and can decide to respond, but the company doesn't get the details of the badge holder.

MTM Part 2 Practical Experience Digital Badge

Master the Mainframe Part 3 Real World Challenge Digital Badge.

7.0 Master the Mainframe Wall of Fame

During the contest the 2019 Master the Mainframe Wall of Fame publically recognizes the names of students and schools who completed Part 2, Part 3 and Contest Winners. During the registration participants are requested to voluntarily provide a social media link. Z Systems employers and a few colleges and universities may directly contact the contest winner. Based on past experiences, if a participant had completed Part 3, they will most likely be contacted. Depending on the school name, many participants, who completed Part 2 may also be contacted. 019 Wall of Fame - http://mtm2019.mybluemix.net/wall_of_fame/wall_of_fame.html