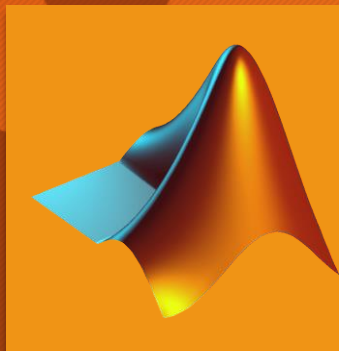


# Online Matlab Training - 2020



Level 1 – session D01



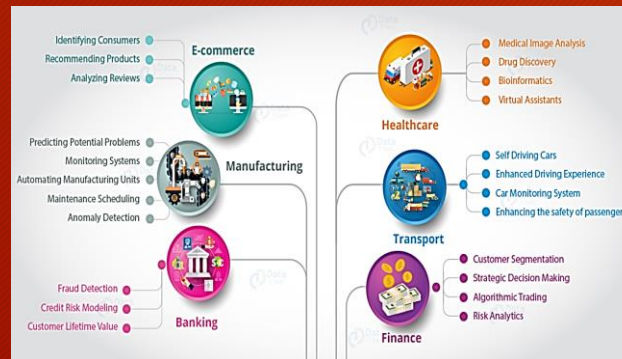
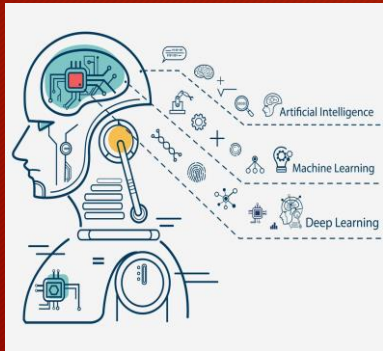
**Jai Mangal Singh** , Founder & CEO at Redtron (Bangalore) , CTO at Stockity & CTO at Masss Energy



# What is MATLAB, Why MATLAB



MATLAB is an integrated technical computing environment that combines numeric computation, advanced graphics and visualization, and a high-level programming language. ....The MathWorks, Inc.



Robotics & Autonomous



Industrial Automation



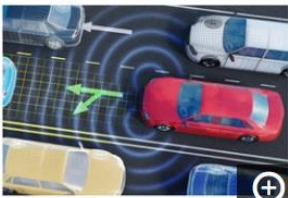
Predictive Maintenance



Patient Monitoring



Electricity Use Forecasting

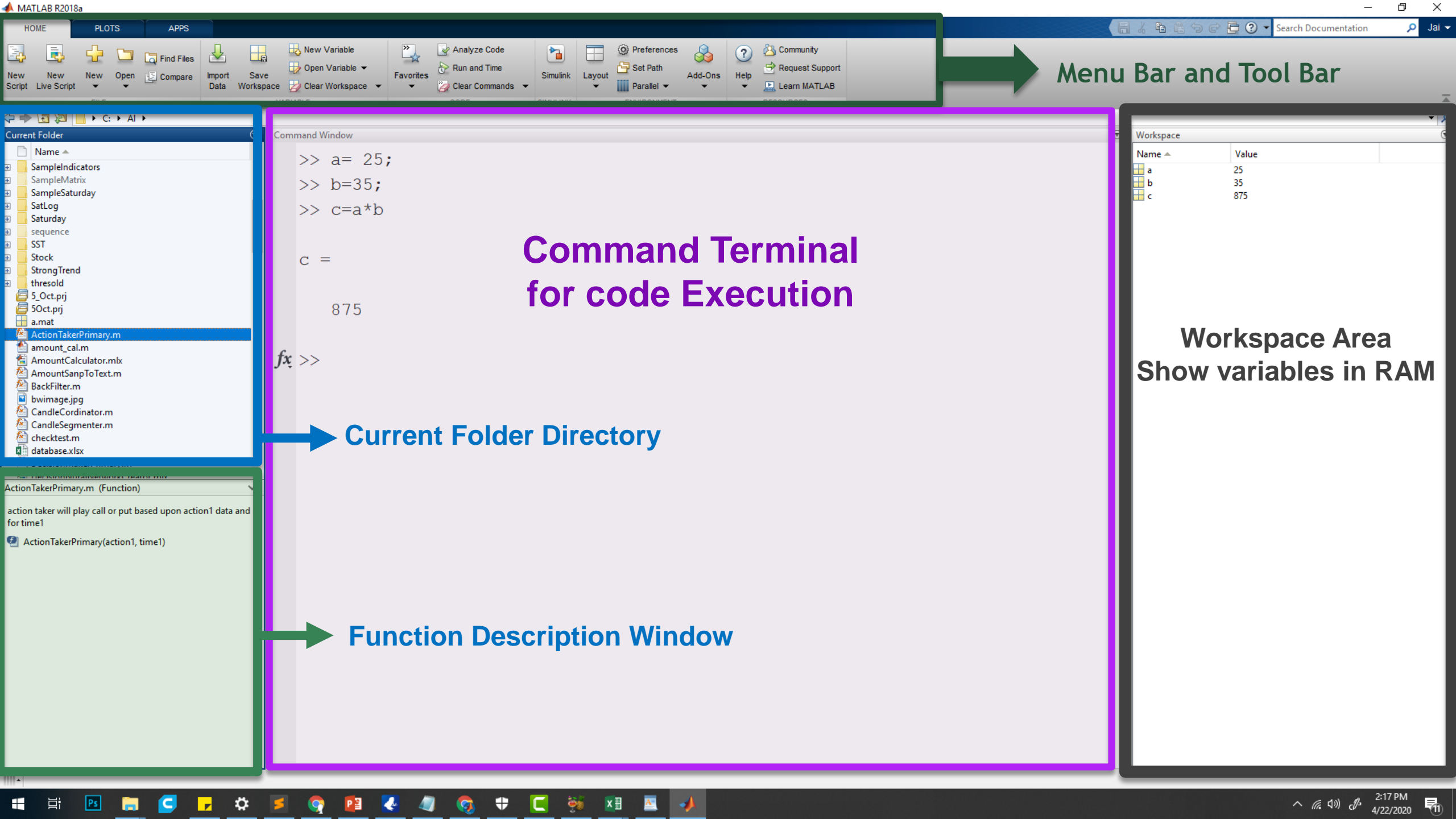


Automated Driving



Jai Mangal Singh , Founder & CEO at Redtron (Bangalore) , CTO at Stockity & CTO at Masss Energy





Menu Bar and Tool Bar

Command Terminal  
for code Execution

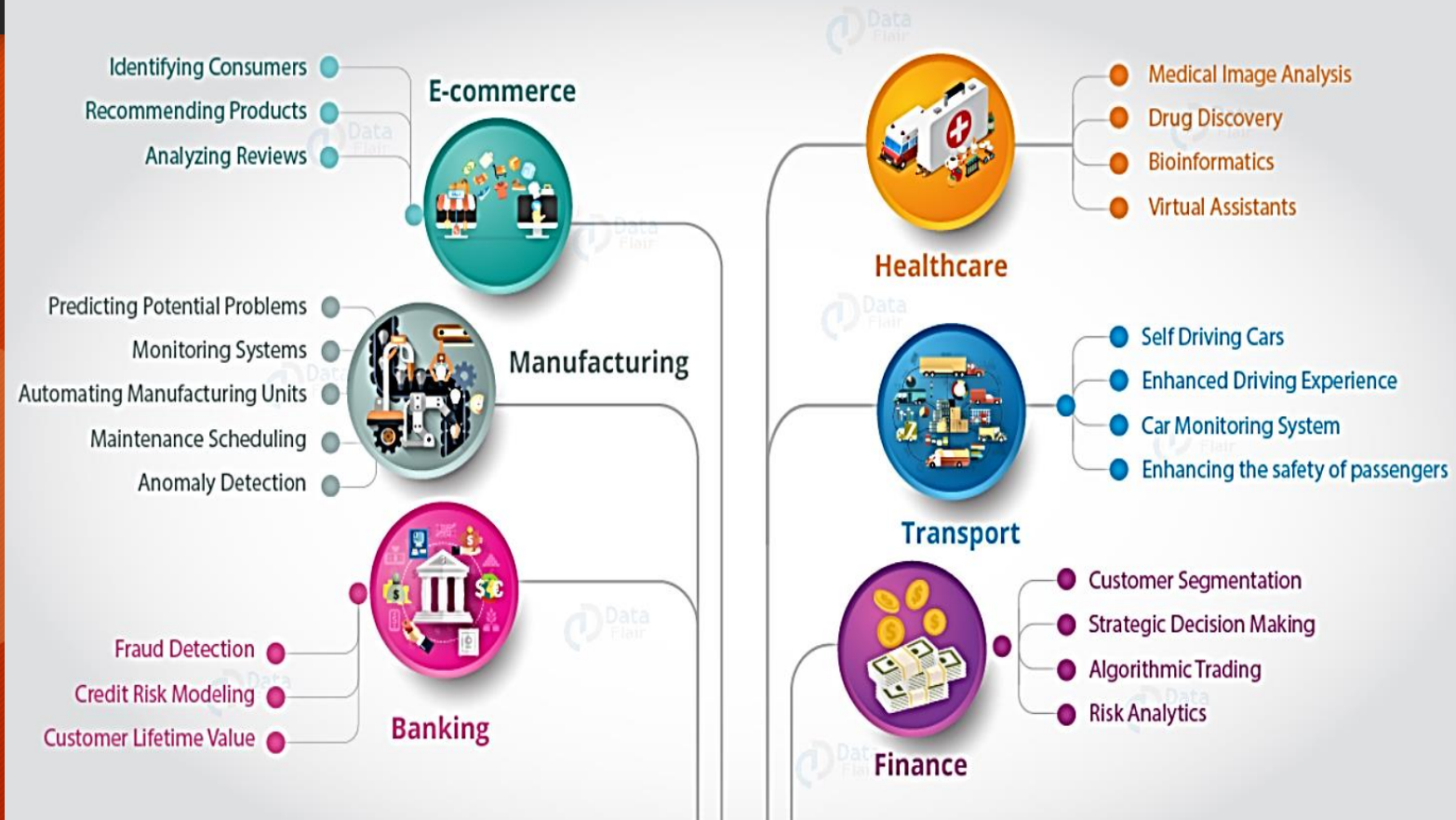
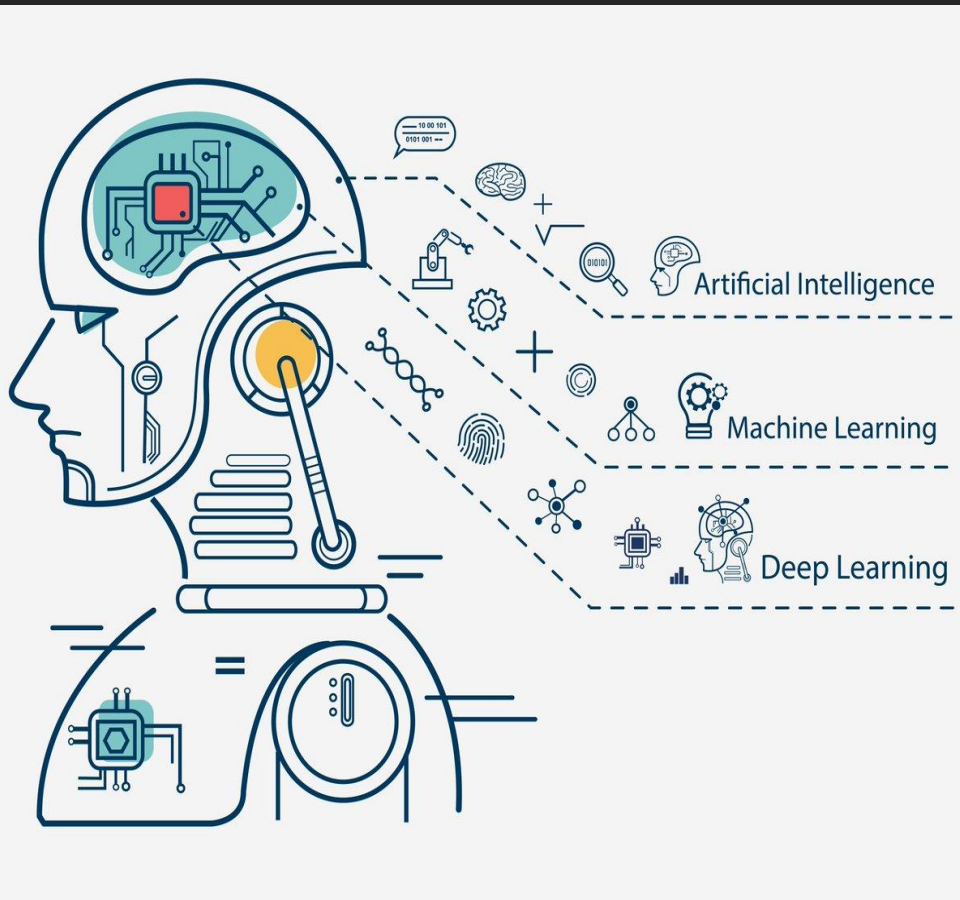
Current Folder Directory

Function Description Window

Workspace Area  
Show variables in RAM



# Why we need Data Science?



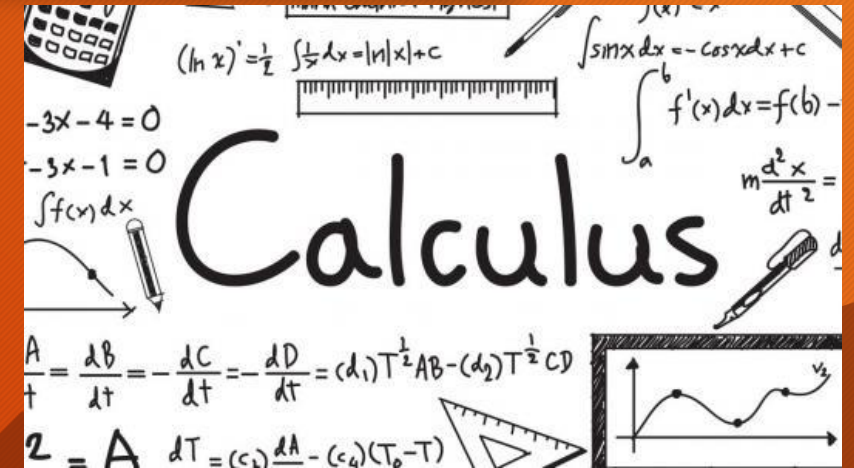
Jai Mangal Singh , Founder & CEO at Redtron (Bangalore) , CTO at Stockity & CTO at Masss Energy



# Today's Agenda



- Introduction to MATLAB.
- Data Types
- Arithmetic operation
- Type Conversion.



$$\int_a^b f(x) dx = F(x) \Big|_a^b = F(b) - F(a)$$



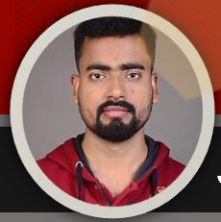


# Mathematical Functions



Trigonometry			
Radian			Degree
Basic	Hyperbolic	Inverse	Basic
<code>sin</code>	<code>sinh</code>	<code>asin</code>	<code>sind</code>
<code>cos</code>	<code>cosh</code>	<code>acos</code>	<code>cosd</code>
<code>tan</code>	<code>tanh</code>	<code>atan</code>	<code>tand</code>
<code>cot</code>	<code>coth</code>	<code>acot</code>	<code>cotd</code>
<code>sec</code>	<code>sech</code>	<code>asec</code>	<code>secd</code>
<code>csc</code>	<code>csch</code>	<code>acsc</code>	<code>cscd</code>

Exponential	Complex	Discrete Math	Matrix
<code>exp</code>	<code>abs</code>	<code>factorial</code>	<code>det</code>
<code>log</code>	<code>conj</code>	<code>gcd</code>	<code>trace</code>
<code>log10</code>	<code>imag</code>	<code>lcm</code>	<code>rank</code>
<code>log2</code>	<code>real</code>	<code>primes</code>	<code>inv</code>
<code>sqrt</code>	<code>angle</code>		<code>expm</code>



# Thank you

[www.redtron.org](http://www.redtron.org)

<https://www.facebook.com/MatlabSimulinkR20>

<https://www.linkedin.com/in/jai-mangal-singh-a0bb544a>

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