SCHOOL OF CIVIL ENGINEERING
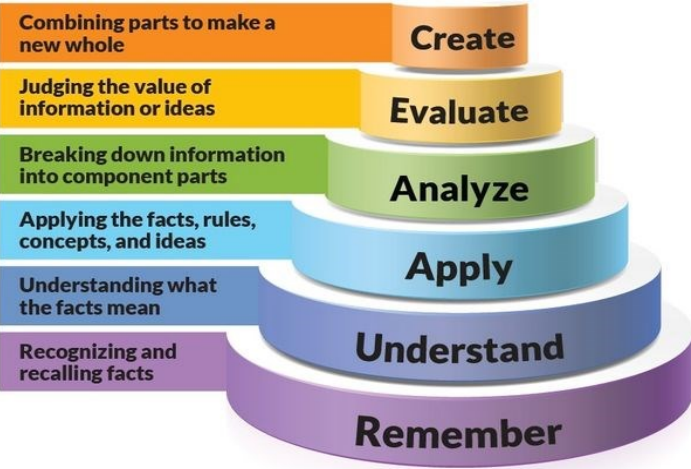## SKILL COURSE – DATA ANALYSIS
NEWSLETTER

About the Newsletter

Welcome to our vibrant weekly newsletter – your dedicated source for connection, inspiration, and skill-building! Immerse yourself in our curated content, featuring insightful updates, expert perspectives, and some nifty tips and tricks in Data Analytics, accompanied by comprehensive course notes. Join us in making this newsletter a dynamic space where information meets inspiration, creating a rich learning experience for all of us.

Best regards.

Guest of the Week

Mr. Dipak Choudhari as a Project Coordinator at M/s Total Geomatics Consulting Inc. in Canada, overseeing various project-related activities.

The Scope of Data Analysis for Engineers, especially Civil Engineers:

Data analysis empowers civil engineers to optimize infrastructure projects. It aids in site selection, material testing, and structural analysis. Through data-driven insights, engineers can assess environmental impacts, predict performance, and enhance safety. Utilizing techniques like GIS, machine learning, and simulation, they ensure efficient resource utilization and sustainable development in construction projects.

The efficient use of data analysis in Project management

Efficient data analysis in project management enhances decision-making by identifying trends, risks, and opportunities. It optimizes resource allocation, schedules, and budgeting. Through metrics like earned value analysis and predictive modeling, it enables proactive problem-solving and ensures project success within constraints, driving continuous improvement and stakeholder satisfaction
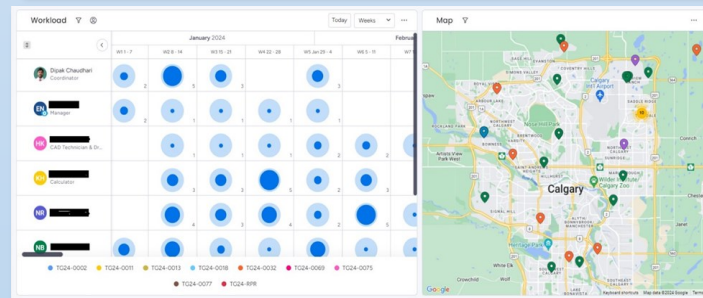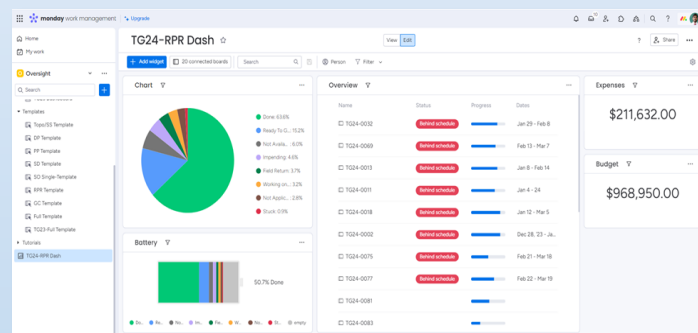
Real time Example of Data analysis used in one of the Project Management Tool (moday.com)

In Monday.com, data analysis is integral for tracking project progress. It provides real-time insights into task completion rates, team workload distribution, and project timelines. By analyzing this data, allocate resources effectively and enhance overall project efficiency and success.

Upcoming Events

Date	Events
01st - 06th Apr' 24	Mid Sem Exam (SY)
07th Apr' 24	World Health Day
09th Apr' 24	Gudi Padwa
11th Apr' 24	Ramazan Eid
14th Apr' 24	Dr. Babasaheb Ambedkar Jayanti

Contd...

Excellent Skill Course

What happened last week

Mr. Swapnil V. Gole
(Final Year BTech)

Ms. Shraddha S. Gadge
(TY BTech)

Using Built-in Functions in Macros:

- Excel VBA provides access to a wide range of built-in functions that you can use within your macros. These functions perform various tasks such as mathematical calculations, string manipulation, date and time operations, and more.

- To use a built-in function, simply call it within your VBA code and pass any required parameters. For example:

```vba
Dim result As Double
result = WorksheetFunction.Sum(Range("A1:A10"))
```
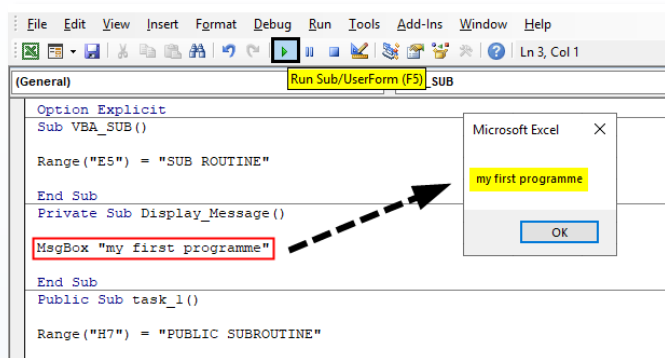
Creating Functions in Macros:

- In addition to using built-in functions, you can create your own custom functions in VBA. Custom functions allow you to encapsulate specific functionality and reuse it throughout your code.

- To create a custom function, use the `Function` keyword followed by the function name and any parameters. For example:

```vba
Function MyFunction(x As Integer, y As Integer) As Integer
    MyFunction = x + y
End Function
```
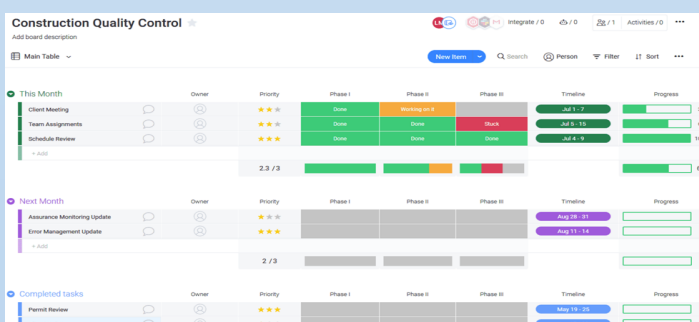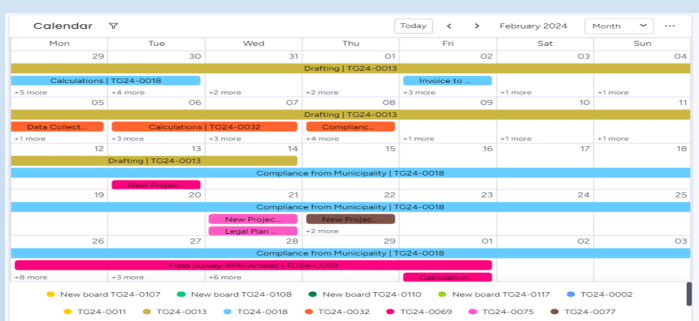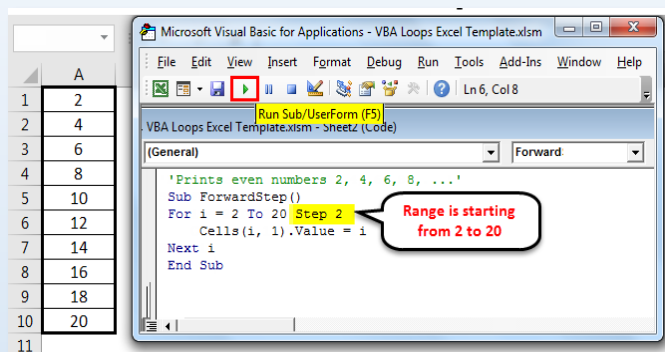
Developing Sub Procedures:

- Sub procedures (subroutines) in VBA are used to group together a series of statements that perform a specific task. They are similar to functions but do not return a value.

Contd...


```vba
Option Explicit
Sub VBA_SUB()

    Range("E5") = "SUB ROUTINE"

End Sub
Private Sub Display_Message()

    MsgBox "my first programme"

End Sub
Public Sub task_1()

    Range("H7") = "PUBLIC SUBROUTINE"
```

Looping:

- Loops in VBA allow you to repeat a block of code multiple times based on certain conditions. There are different types of loops available in VBA, including `For`, `While`, and `Do...Loop`.


```vba
'Prints even numbers 2, 4, 6, 8, ...'
Sub ForwardStep()
For i = 2 To 20 Step 2      'Range is starting from 2 to 20
    Cells(i, 1).Value = i
Next i
End Sub
```


Tips of the Week

Hello Excel enthusiasts! We've gathered essential Excel formulas to elevate your spreadsheet game. These formulas serve as potent tools for optimizing data management and analysis, offering unparalleled efficiency and precision in handling complex datasets.

(QR Code for Excel-ALT Shortcuts)

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(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

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