CHAT CONNECT AND COMMUNICATION APP

INTRODUCTION :

Connect Chat **allows you to interact with other ITIL staff in a productive way using a familiar chat tool similar to SMS on your smartphone**. There are two ways to view Connect Chat, via the Sidebar or Workspace.

1.1   overview :

They can **discuss a range of topics, and even help each other understand things that might confuse them**. Chatting with peers online can help young people to: discuss homework or ideas from school they didn't understand. talk to a friend about something that's happened at school.

1.2   purpose :

Application software is a computer program that responds to user input and helps them perform personal, professional and educational tasks. This software often is important because it **allows you to perform activities that express creativity, fulfil productivity and improve communication**

PROBLEM DEFINATION & DESIGN THINKING :

There are three types of problem in design thinking: **Simple Problems**. Ill-Defined Problems. Wicked Problems

2.1 EMPATHY MAP :

EMPATHY MAP

SAYS   THINKS

NAME

DOES   FEELS

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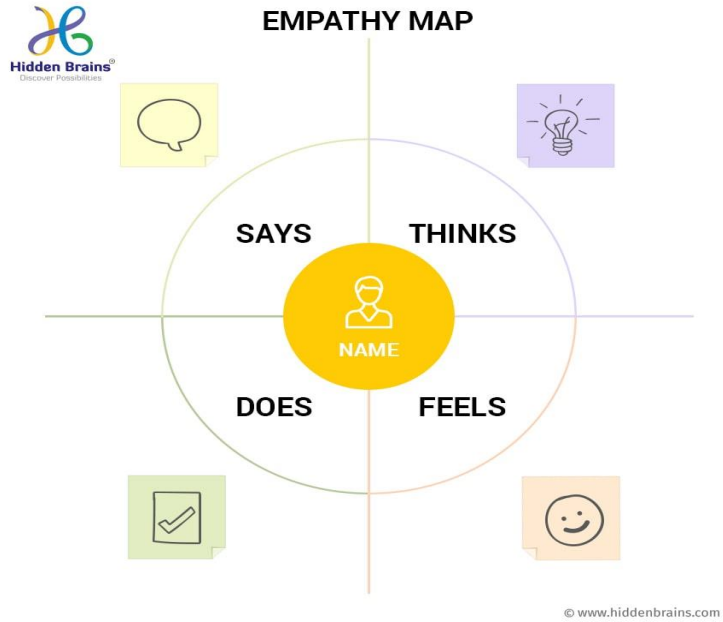
RESULT :

o check the CAT 2022 result, candidates need to follow the below mentioned steps:

1. Visit the official website (iimcat.ac.in)
2. Click on 'CAT 2022 scorecard download'
3. Enter CAT 2022 ID and password.
4. Click on the 'scorecard' tab.
5. Download the CAT result 2022 PDF.

ADVANTAGES AND DISADVANTAGES :

The 37 Advantages and Disadvantages of Live Chat

- Faster support. ...
- Real-time text preview. ...
- Instant customer feedback. ...

- Less drama. ...
- Prevents agent fatigue. ...
- No waiting queues. ...
- Non-intrusive. ...
- On-site.

APPLICATION :

A chat application **makes it easy to communicate with people anywhere in the world by sending and receiving messages in real time**. With a web or mobile chat app, users are able to receive the same engaging and lively interactions through custom messaging features, just as they would in person

CONCLUSION :

chat room is **an online platform that enables users to communicate with each other in real time**. Chat rooms are typically hosted on a server with an internet connection, enabling members from around the world to hold conversations about various topics.

FUTURE SCOPE :

The future of chatbots is **transforming the way businesses interact with their customers**. From handling customer inquiries and offering real-time support to providing personalized product recommendations, chatbots are becoming increasingly important for all types of businesses in the digital ag

APPENDIX :

```
                function out = analysis2()
%================================================================= === % Create
Graphical User Interface Screen Functions
%================================================================= ===
figNumber=figure( ... 'Name','Ultrasound Analysis System', ... 'NumberTitle','off', ... 'Tag', 'Fig', ...
'Visible','off', ... 'Position',[100 300 800 400]); axes( ... 'Units','normalized', ... 'Position',[0.07 0.12 0.7
0.65]); %================================== %Console and Button Information labelColor=[0.8
0.8 0.8]; top=0.95; bottom=0.05; yInitLabelPos=0.90; labelWid=0.20; labelHt=0.05; btnWid=0.10;
btnHt=0.05; left = 1 - (btnWid+0.05); % Spacing between the label and the button for the same
command btnOffset=0.003; % Spacing between the button and the next command's label spacing=0.05;
%================================== % The CONSOLE frame frmBorder=0.02; yPos=0.05-
frmBorder; frmPos=[left-frmBorder yPos btnWid+2*frmBorder 0.9+2*frmBorder]; h=uicontrol( ...
'Style','frame', ... 'Units','normalized', ... 'Position',frmPos, ... 'BackgroundColor',[0.50 0.50 0.50]); value =
```

0; cwave_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'wave', ... 'Value', 1, ... 'Tag', 'Wave', ... 'Units', 'Normalized', ... - 216 - 'Position', [0.05 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Wave''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), ''Measured Wave'');']); cbase_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'base', ... 'Value', 1, ... 'Tag', 'Base', ... 'Units', 'Normalized', ... 'Position', [0.13 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Base''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), '''');']); cwwave_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'wwave', ... 'Value', 1, ... 'Tag', 'Wwave', ... 'Units', 'Normalized', ... 'Position', [0.21 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Wwave''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), ''Windowed Wave'');']); cwbase_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'wbase', ... 'Value', 1, ... 'Tag', 'Wbase', ... 'Units', 'Normalized', ... 'Position', [0.29 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Wbase''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), ''Windowed Base'');']); ccwwave_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'cwwave', ... 'Value', 1, ... 'Tag', 'Cwwave', ... 'Units', 'Normalized', ... 'Position', [0.37 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Cwwave''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), ''Downsampled, Windowed Wave'');']); ccwbase_popup = uicontrol(... - 217 - 'Style', 'pushbutton', ... 'String', 'cwbase', ... 'Value', 1, ... 'Tag', 'Cwbase', ... 'Units', 'Normalized', ... 'Position', [0.45 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Cwbase''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(1), ''Downsampled, Windowed Reference'');']); cwmag_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'wmag', ... 'Value', 1, ... 'Tag', 'Wmag', ... 'Units', 'Normalized', ... 'Position', [0.53 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Wmag''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(4), ''Wave Magnitude Spectrum'');']); cbmag_popup = uicontrol(... 'Style', 'pushbutton', ... 'String', 'bmag', ... 'Value', 1, ... 'Tag', 'Bmag', ... 'Units', 'Normalized', ... 'Position', [0.61 0.92 0.06 0.05], ... 'CallBack' , [... 'UD = get(findobj(''Tag'', ''Bmag''), ''UserData'');', ... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(4), ''Reference Magnitude Spectrum'');']); cmag_popup = uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position', [0.69 0.92 0.06 0.05], ... 'Value', 1, ... 'String','Rmag', ... 'Tag', 'Mag', ... 'Callback', [... 'UD = get(findobj(''Tag'', ''Mag''), ''UserData'');',... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(4), ''Magnitude Difference: Rmag - Wmag'');', ... 'axis([0 10^6 val(7) val(8)]);']); cplot_popup = uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position', [0.09 0.85 0.06 0.05], ... 'Value', 1, ... - 218 - 'String','PlotFile', ... 'Tag', 'Plot', ... 'Callback', 'plotfile'); cviewseq_popup = uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position', [0.17 0.85 0.06 0.05], ... 'Value', 1, ... 'String','ViewSeq', ... 'Tag', 'ViewS', ... 'Callback', [... 'UD = viewseq(0);'... 'set(findobj(''Tag'', ''LastS''), ''UserData'', UD)']); clastseq_popup = uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position', [0.25 0.85 0.06 0.05], ... 'Value', 1, ... 'String','LastSeq', ... 'Tag', 'LastS', ... 'Callback', [... 'UD = get(findobj(''Tag'', ''LastS''), ''UserData'');'... 'viewseq(UD)']); uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position',[0.33 0.85 0.06 0.05], ... 'String','IAS', ... 'Callback', 'threeias(1, 1, 1)'); uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position',[0.41 0.85 0.06 0.05], ... 'String','ACORR', ... 'Tag', 'Acorr', ... 'Callback', 'acorr(1, 1, 1)'); uicontrol(... 'Style','pushbutton', ... 'Units', 'Normalized', ... 'Position',[0.49 0.85 0.06 0.05], ... 'String','CCorr', ... 'Callback', [... 'UD1 = get(findobj(''Tag'', ''Base''), ''UserData'');', ... 'UD2 = get(findobj(''Tag'', ''Wave''), ''UserData'');', ... 'UD3 = get(findobj(''Tag'', ''Xcorr''), ''UserData'');', ... 'attcorrcorr(UD1, UD2, UD3)']); - 219 - %================================= %Close button uicontrol(... 'Style','pushbutton', ...

'Units','normalized', ... 'Position',[left bottom btnWid 2*btnHt], ... 'String','Close', ... 'Callback', 'close(gcf)'); buttonb = bottom + 2*btnHt + 0.02; uicontrol(... 'Style','pushbutton', ... 'Units','normalized', ... 'Position',[left buttonb btnWid 2*btnHt], ... 'String','Select Files', ... 'Callback', 'analysis(10);'); buttonb = top - 2*btnHt - 0.02 - frmBorder; xcorr_button = uicontrol(... 'Style','pushbutton', ... 'Units','normalized', ... 'Position',[left buttonb btnWid 2*btnHt], ... 'String','XCORR', ... 'Tag', 'Xcorr', ... 'Callback', [... 'UD1 = get(findobj(''Tag'', ''Wbase''), ''UserData'');', ... 'UD2 = get(findobj(''Tag'', ''Wwave''), ''UserData'');', ... 'UD3 = get(findobj(''Tag'', ''Xcorr''), ''UserData'');', ... 'correlation(UD1, UD2, UD3)']); buttonb = buttonb - 2*btnHt - 0.02; bua_button = uicontrol(... 'Style','pushbutton', ... 'Units','normalized', ... 'Position',[left buttonb btnWid 2*btnHt], ... 'String','BUA', ... 'Tag', 'Bua',... 'Callback', [... 'UD = get(findobj(''Tag'', ''Mag''), ''UserData'');',... 'val = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'aplot(UD, val(4), ''Select BUA region...'');', ... 'text(600000, max(UD)/2, ''Select BUA region'', ''color'', ''red'');', ... 'axis([0 10^6 val(7) val(8)]);',... 'UD1 = get(findobj(''Tag'', ''Bua''), ''UserData'');',... 'UD2 = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'bua(UD1, UD2);']); buttonb = buttonb - 2*btnHt - 0.02; - 220 - ibs_button = uicontrol(... 'Style','pushbutton', ... 'Units','normalized', ... 'Position',[left buttonb btnWid 2*btnHt], ... 'String','IBS', ... 'Tag', 'Ibs', ... 'Callback', [... 'UD1 = get(findobj(''Tag'', ''Ibs''), ''UserData'');',... 'UD2 = get(findobj(''Tag'', ''Acorr''), ''UserData'');', ... 'ibs(UD2, UD1)']); buttonb = buttonb - 2*btnHt - 0.02; uicontrol(... 'Style','pushbutton', ... 'Units','normalized', ... 'Position',[left buttonb btnWid 2*btnHt], ... 'String','Group Velocity', ... 'Callback', [... 'UD1 = get(findobj(''Tag'', ''Cwwave''), ''UserData'');',... 'UD2 = get(findobj(''Tag'', ''Cwbase''), ''UserData'');',... 'UD3 = get(findobj(''Tag'', ''Xcorr''), ''UserData'');',... 'groupvel(UD1, UD2, UD3);']); % Now uncover the figure set(figNumber,'Visible','on');
%== === % End Screen Functions
%== === - 221 - 3) function out = analysis(mode, base, data) %--------------------====================================-------------------- ---- % ANALYSIS(MODE, BASE, DATA) % % Values for MODE: 10 --> Use file selection dialog boxes. % BASE and DATA not required % % 1 --> Perform analysis on files in c:\data % % BASE refers to a measurement of the water filled tank WITHOUT a % sample in place. % % DATA refers to a measurement of the water filled tank WITH a % sample in place. % % % ** Note: BASE and DATA measurments must be taken with the same sampling rate. ** % % Examples: analysis(10); % analysis(1, 'base', 'wave'); % %--------------------====================================------------------ if mode == 10 [dfname, dpname] = uigetfile('*.dat', 'Select Data File'); if dfname == 0 %the user pressed cancel disp(''); return; %abort and return to window end DescFile = [dpname dfname '.desc']; elseif mode == 1 dfname = [data '.dat']; dpname = ['c:\data\']; DescFile = [dpname dfname '.desc']; elseif mode == 100 | mode == 200 dfname = data; DescFile = [dfname '.desc']; end %read in and parse descriptor file Param = parse_descriptor(DescFile); if(Param(1) == -1) %unable to read file DispString = sprintf('', DescFile); disp(DispString); out = [-1 0]; return; - 222 - end TimePerSample = Param(1); NumSamples = Param(2) SampRate = Param(3); HzPerSample = Param(4); if mode == 10 [bfname, bpname] = uigetfile('*.dat', 'Select Base (water only) File'); if bfname == 0 disp(''); return; %abort and return to window end elseif mode == 1 bfname = [base '.dat']; bpname = ['c:\data\']; elseif mode == 100 | mode == 200 bfname = base; bpname = ['c:\data\']; end %load the data sets if mode == 100 | mode == 200 DataFile = data; BaseFile = base; else DataFile = [dpname dfname] BaseFile = [bpname bfname] end wave = agetdata(DataFile); base = agetdata(BaseFile); fbase = 1:NumSamples; for i = 1:NumSamples fbase(i) = i * TimePerSample; end plot (fbase, wave); y = max(wave); text(fbase(NumSamples)/3, y, 'Select Window

Region', 'color', 'red'); xlabel('Time (s)') ylabel('Voltage (v)') points = getclicks_t (gca, TimePerSample, NumSamples); %Points returned window start, end time value wstart = points(1) wend = points(2) % Adjust to points index according to TimeBase w2start = round (wstart/TimePerSample) w2end = round (wend/TimePerSample) - 223 - % Some error checking if w2start > NumSamples w2start = NumSamples; elseif w2start <= 0 w2start = 1; end if w2end > NumSamples w2end = NumSamples; elseif w2end <= 0 w2end = 1; end %set some parameters for windowing, downsampling, and zero padding %WindowTime = 20*10^-6; %window length WindowTime = wend - wstart %window length WindowRes = 10^4; %frequency resolution of final, zero padded signal in Hz/point DesSampRate = 10*10^6; %desired sampling rate after downsampling PaddedTime = 100^-6; %time length of zero padded signal %We want a time range of 100us to provide 10kHz frequency resolution Param(6) = WindowTime / Param(1); %number of points included in window % Param(4) = WindowRes; disp(Param); %Window the data for bua/etc. IBSWave = ibs_window_wave(wave, Param(1)); OrigTimePerSample = Param(1); %Window the data wbase = window_wave (base, 2000); wwave = Window_waves (wave, w2start, w2end); %Remove any DC Components IBSWave = removeDC(IBSWave); wwave = removeDC(wwave); wbase = removeDC(wbase); if mode == 100 % out = [correlation(wbase, wwave) encorrelation(wbase, wwave, OrigTimePerSample) Param(9)]; - 224 - out = [correlation(wbase, wwave) attcorrcorr(base, wave, OrigTimePerSample) Param(9)]; return; elseif mode == 200 out = [ibs(wwave, OrigTimePerSample) Param(9)]; return end %Now Downsample to desired rate disp(''); if DesSampRate < Param(3) %only downsample if needed factor = round(Param(3)/ DesSampRate); %downsample by a factor of 'factor' cwwave = compress(wwave, factor); cwbase = compress(wbase, factor); TimePerSample = Param(1) * factor; else cwwave = wwave; cwbase = wbase; TimePerSample = Param(1); end SampRate = 1/TimePerSample; Param(3) = SampRate; %Pad the waveforms out to desired time cwwave = zero_pad(cwwave, DesSampRate); cwbase = zero_pad(cwbase, DesSampRate); %Calculate ffts disp(''); base_mag = 20*log10(abs(fft(cwbase)))-7; wave_mag = 20*log10(abs(fft(cwwave)))-47; result_mag = abs(base_mag - wave_mag); result_size = size(result_mag); Param(5) = HzPerSample; %store old value for plotting HzPerSample = Param(3)/result_size(2); Param(4) = HzPerSample; Param(6) = result_size(2); HzPerSample result_size(2) fbase = 1:result_size(2); for i = 1:result_size(2); fbase(i) = i * HzPerSample; %set frequency scale end - 225 - ymin = min(result_mag); ymax = max(result_mag); Param(7) = ymin; Param(8) = ymax; set(findobj('Tag', 'LastS'), 'UserData', 0); set(findobj('Tag', 'Wave'), 'UserData', wave); set(findobj('Tag', 'Base'), 'UserData', base); set(findobj('Tag', 'Wwave'), 'UserData', wwave); set(findobj('Tag', 'Wbase'), 'UserData', wbase); set(findobj('Tag', 'Cwwave'), 'UserData', cwwave); set(findobj('Tag', 'Cwbase'), 'UserData', cwbase); set(findobj('Tag', 'Wmag'), 'UserData', wave_mag); set(findobj('Tag', 'Bmag'), 'UserData', base_mag); set(findobj('Tag', 'Mag'), 'UserData', result_mag); set(findobj('Tag', 'Xcorr'), 'UserData', Param); set(findobj('Tag', 'Bua'), 'UserData', result_mag); set(findobj('Tag',

Chat Support refers to **real-time communication between a customer and customer support agent via instant messaging, usually through a pop-up dialogue box built into a company's website**