variable is

variable is Y and

variable is Y and you can plot X

variable is Y and you can plot X&Y it

variable is Y and you can plot X&Y it should be straight line

wo 100359: variable is Y and you can plot X&Y it should be straight line

means it is linearly

means it is linearly there can be some

means it is linearly there can be some data points here

e 100359: means it is linearly. There can be some data points here.

ee 100359: This data points

e 100359: This data points it should increase

e 100359: This data points it should increase linearly

e 100359: This data points it should increase linearly so

e 100359: This data points it should increase linearly so whenever

100359: you're.

100359: I see

ee 100359: Well you're independent

e 100359: Well you're independent variable why will |

e 100359: Well you're independent variable why will increase your

accident

access will also increase

e 100359: access will also increase in linear.

er 100359: That leads

ee 100359: That leads let's assume that

e 100359: That leads let's assume that OK

e 100359: That leads let's assume that OK this point

e 100359: That leads. Let's assume that, OK, this one.

Pe)

afk. 100359: Settings.

© 100359: Settings.

ae,

ee 100359: Just a second can you recall

e 100359: Just a second can you recall uh when uh

e 100359: Just a second can you recall uh when uh coordinate your

geometry equation

geometry equation the slope of

geometry equation the slope of line

e 100359: geometry equation, the slope of line.

e 100359: geometry equation, the slope of line.

e 100359: geometry equation, the slope of line.

© 100359: Thank you

> 100359: Thank you

100359: Why call to MX

ee 100359: Why call to MX plus C

e 100359: Why call to MX plus C it is it was a slow

e 100359: Why call to MX plus C it is it was a slope slope

e 100359: Why call to MX plus C it is it was a slope slope of line

e 100359: Why call to MX plus C? It is it was a slope slope of line.

21BAI10033: Y = 2 X plus

e 100359: OK, where where am is your slope?

ee 100359: And see what's your official.

ee 100359: And see what's your office

e 100359: And the same person

e 100359: And the same goes yeah

e 100359: And the same goes yeah intersect

e 100359: And the same goes yeah intersect see you can be

And the same goes, yeah. Intersect. See, you can be

we, 100359: anything.

e 100359: The same concept we will use in this

e 100359: The same concept we will use in this linear regression

e 100359: The same concept we will use in this linear regression the

ee 100359: equation will be your.

ee 100359: equation will be your.

ae,

© 100359: But why 2

© 100359: But why 2?

ae,

© 100359: Umm

© 100359: Umm.

> 100359: AO plus

© 100359: AO plus A1 X

© 100359: AO plus A1 X.

© 100359: AO plus A1 X.

© 100359: AO plus A1 X.

© 100359: AO plus A1 X.

> 100359: OK so here

© 100359: OK so here this

e 100359: OKso here this see you can say this

e 100359: OK so here this see you can say this and this

e 100359: OK so here this see you can say this and this M can be your

© 100359: alpha.

ae,

ee 100359: No if your wife

e 100359: No if your wife which is your

e 100359: No if your wife which is your independent variable

e 100359: No. If your wife, which is your independent variable.

e 100359: No. If your wife, which is your independent variable.

ee 100359: OK if you have to calculate

e 100359: OK if you have to calculate value of

e 100359: OK if you have to calculate value of independent variables

then you

then you have to

then you have to calculate with the

then you have to calculate with the value of dependent

we, 100359: then you have to calculate with the value of dependent

variable so this will be the

variable so this will be the equation for

variable so this will be the equation for your

variable so this will be the equation for your linear

variable so this will be the equation for your linear equation

where alpha is your

where alpha is your coefficient

e 100359: where alpha is your coefficients.

ee 100359: where alpha is your coefficients.

Lat

e 100359: Office change stuff regression

e 100359: Office change stuff regression

e 100359: Office change stuff regression.

bid 100359: You can note down then | will

e 100359: You can note down then | will explain | will erase this

and | will

ee 100359: this and | will explain.

ee 100359: this and | will explain.

ae,

e 100359: Have you noted this

ee 100359: Have you noted this?

eh 100359: You can take that

ee 100359: You can take that

ee 100359: You can take that.

ee 100359: You can take that.

21BOE10077: Yes or no

21BOE10077: Yes or no

21BOE10077: Yes or no

21BOE10077: Yes or no

21BOE10077: Yes or no

© 100359: OK, I'm.

21BAI10361: Sir A1 and alpha naughty are constantly what constants of

21BAI10361: Sir A1 and alpha naughty are constantly what constants of

21BAI10361: OK Sir and independent variable is Sir Y

ee 100359: Close.

© 100359: Yes

J21RBAI10361: OK

21BAI10361: OK.

& 100359: I'm no sorry we

ee 100359: I'm no sorry wait wait wait

e 100359: I'm no sorry wait wait wait it is opposite

21BAI10403: But then variable

et 100359: Your dependent variable is Y

e 100359: Your dependent variable is Y because you are

e 100359: Your dependent variable is Y because you are calculating all

the value with the independent

the value with the independent variable and

the value with the independent variable and this will be our

thanks

Wy tS S: PEIQIEEND.

QJIRAIIN26E1: Ninna

21BAI10361: Nope.

21BAI10361: Nope.

e 100359: Because you are dependent

e 100359: Because you are dependent on the other variables right

e 100359: Because you are dependent on the other variable right so

your ex is

your ex is independent variable on which you have

wr, 100359: your ex is independent variable on which you have to

© 100359: calculate.

© 100359: calculate.

© 100359: calculate.

© 100359: calculate.

© 100359: calculate.

© 100359: calculate.

© 100359: calculate.

> 100359: OK

© 100359: OK.

=

© 100359: Like.

21BAI10361: Yes.

21BAI10361: Yes.

er 100359: You are you

ee 100359: You are your kids

e 100359: You have your kids your friends

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

e 100359: You have your kids, your friends.

ee 100359: We were here

ee 100359: We were here and uh

ee 100359: We were here and uh.

ee 100359: We were here and uh.

ae,

ee 100359: And your wife

ee 100359: And your wife?

bid 100359: Thank you then equal to 0

e 100359: Thank you then equal to 0 plus alpha

e 100359: Thank you. Then equal to 0 plus A1.

e 100359: Thank you. Then equal to 0 plus A1.

e 100359: Thank you. Then equal to 0 plus A1.

© 100359: Excellent.

© 100359: Excellent.

© 100359: Excellent.

© 100359: Excellent.

© 100359: So in linear

e 100359: So in linear regression there are

e 100359: So in linear regression there are two things

e 100359: So in linear regression, there are two things simple.

e 100359: So in linear regression, there are two things simple.

100359: Simple linear

ee 100359: Simple linear regression.

ae,

> 100359: And 2nd is

e 100359: And 2nd is second one is multi

e 100359: And 2nd is second one is multiple linear

e 100359: And 2nd is second one is multiple linear regression

e 100359: And 2nd is second one is multiple linear regression.

e 100359: And 2nd is second one is multiple linear regression.

e 100359: And 2nd is second one is multiple linear regression.

e 100359: And 2nd is second one is multiple linear regression.

e 100359: And 2nd is second one is multiple linear regression.

100359: OK when |

ee 100359: OK when is simple and 2nd

e 100359: OK when is simple and 2nd is multiple

e 100359: OK, when is simple and 2nd is multiple.

> 100359: In simplicity

e 100359: In simplicity irrigation there

e 100359: In simplicity irrigation there will be one

e 100359: In simplicity irrigation there will be one axe means there

there will be

there will be one dependent

e 100359: there will be one dependent variable.

e 100359: there will be one dependent variable.

e 100359: there will be one dependent variable.

we, 100359: there will be one dependent variable.
ay

e 100359: Defendant carnival one and

e 100359: Defendant carnival one and there will be only one

indenendent variable

ee 100359: independent variable.

ee 100359: independent variable.

100359: OK.

© 100359: OK.

=

ee 100359: There is one dependent

e 100359: There is one dependent and one

e 100359: There is one dependent and one independent variable

wr, 100359: There is one dependent and one independent variable this is

called your simple

called your simple linear

called your simple linear linear regression

called your simple linear linear regression and that

- 100359: called your simple linear linear regression and that can be

represented with this situation

e 100359: represented with this situation.

e 100359: represented with this situation.

e 100359: represented with this situation.

e 100359: represented with this situation.

e 100359: represented with this situation.

er 100359: And suppose.

> 100359: And suppose.

a

e 100359: Like with the previous

e 100359: Like with the previous example there

e 100359: Like with the previous example there can be multiple

e 100359: Like with the previous example there can be multiple

ee 100359: independent variable.

©" 100359: Multiple

e 100359: Multiple suppose it is 5 or 6

e 100359: Multiple suppose it is five or six it can be

e 100359: Multiple suppose it is five or six it can be multiple

independent variable can be

independent variable can be one and |

independent variable can be one and independent variable

© 100359: can be made.

& 100359: So in that case

e 100359: So in that case your equation will be

e 100359: So in that case your equation will be Y

e 100359: So in that case your equation will be Y equal to

e 100359: So in that case your equation will be Y equal to AO plus

e 100359: So in that case your equation will be Y equal to AO plus.

ee 100359: I'll call an excellent

ee 100359: I'll call an excellent this year for

e 100359: I'll call an excellent this year for first variable

e 100359: I'll call an excellent this year for first variable then I'll

e 100359: I'll call an excellent this year for first variable then alpha 2X

e 100359: I'll call an excellent this year for first variable, then alpha 2X2.

& 100359: Less than

ee 100359: Less than alpha

e 100359: Less than alpha 3X3

ee 100359: Less than alpha 3X3 so it will

e 100359: Less than alpha 3X3 so it will go on

e 100359: Less than alpha 3X3 so it will go on it it will

e 100359: Less than alpha 3X3 so it will go on it it will depend on and it

it the equation will

it the equation will be dependent on

it the equation will be dependent on how many

variable you are

variable you are happy

e 100359: independent variable you are happy.

id 100359: So this is go on like

e 100359: So this is go on like this

e 100359: So this is go on like this.

e 100359: So this is go on like this.

e 100359: So this is go on like this.

e 100359: So this is go on like this.

e 100359: So this is go on like this.

©" 100359: OK.

© 100359: OK.

=

© 100359: This is what

e 100359: This is for multiple linear regression

e 100359: This is for multiple linear regression.

e 100359: This is for multiple linear regression.

e 100359: This is for multiple linear regression.

e 100359: This is for multiple linear regression.

e 100359: This is for multiple linear regression.

e 100359: This is for multiple linear regression.

© 100359: | think.

e 100359: When this all alpha

© 100359: When this all I'll call I'll fill you

"100359: When this all I'll call I'll fill your

e 100359: When this all I'll fall I'll fall your coefficients

e 100359: When this all I'll fall, I'll fall your coefficients.

e 100359: When this all I'll fall, I'll fall your coefficients.

e 100359: When this all I'll fall, I'll fall your coefficients.

e 100359: When this all I'll fall, I'll fall your coefficients.

e 100359: When this all I'll fall, I'll fall your coefficients.

e 100359: Have you noted down

ee 100359: Have you noted down?

ee 100359: Have you noted down?

ee 100359: Have you noted down?

21BAI10033: Yes Sir

21BAI10033: Yes, Sir.

21BEC10049: Uh so can you please explain this

21BEC10049: Uh so can you please explain this simple one

21BEC10049: Uh, so can you please explain this simple one again?

21BEC10049: Uhso can

21BEC10049: Uhso can

21BEC10049: Uhso can

100359: Wait, wait, I'm coming back.

e 100359: Suppose you have to

e 100359: Suppose you have to predict or

e 100359: Suppose you have to predict or.

er 100359: You have to calculate their

e 100359: You have to calculate the result.

e 100359: You have to calculate the result.

ee 100359: You have to calculate the result.

Lat

© 100359: OK.

© 100359: OK.

e 100359: The result that can be

ee 100359: The result there can be a

e 100359: The result there can be a independent variable

e 100359: The result there can be a independent variable that

e 100359: The result there can be a independent variable that is your

marks

© 100359: marks.

ee 100359: That can be independent variables

e 100359: That can be independent variables like your

e 100359: That can be independent variables like your enrollment

enrollment number

ee 100359: enrollment number.

ee 100359: enrollment number.

© 100359: There can be

e 100359: There can be independent variable

e 100359: There can be independent variable isn't it

e 100359: There can be independent variable, isn't it?

e 100359: There can be independent variable, isn't it?

ee 100359: OK suppose you

e 100359: OK suppose you have this

e 100359: OK suppose you have this three parameter

e 100359: OK suppose you have these three parameters to calculate

e 100359: OK suppose you have these three parameters to calculate or

predict the result

predict the result OK you can

predict the result OK you can take marks or

Wy, 100359: predict the result OK you can take marks or percentage

e 100359: Anything you can make.

wo 100359: Anything you can make.

Gah.

© 100359: No for

ee 100359: No for result.

100359: No for result.

aa

ee 100359: The value or

e 100359: The value or weight is of

e 100359: The value or weight is of marks in the element

e 100359: The value or weight is of marks in the element number or

name now you

name now you can imagine what can be

name now you can imagine what can be the wettest for your

marks it can be

marks it can be maximum

e 100359: your marks. It can be maximum.

e 100359: your marks. It can be maximum.

© 100359: With this | can

ee 100359: With this | can take the blue

e 100359: With this | can take the blue the blue and the

e 100359: With this | can take the blue the blue and the blue W 1

e 100359: With this | can take the blue the blue and the blue W1W2 W

© 100359: 2W3.

© 100359: 2W3.

e 100359: Two calculator design

ee 100359: Two calculated result.

ee 100359: Two calculated result.

ae,

ee 100359: Can you say wait is

ee 100359: Can you say wait is off

e 100359: Can you say wait is of marks is better

e 100359: Can you say wait is of marks is better than W2 or

e 100359: Can you say wait is of marks is better than W2 or W3

e 100359: Can you say wait is of marks is better than W2 or W3?

e 100359: Can you say wait is of marks is better than W2 or W3?

e 100359: Can you say wait is of marks is better than W2 or W3?

e 100359: Can you say wait is of marks is better than W2 or W3?

21BAC10005: All set.

21BAC10005: All set.

21BAC10005: All set.

ee 100359: The weight is on

e 100359: The weight is on which uh or

e 100359: The weight is on which uh or you can say that dominant

we, 100359: The weight is on which uh or you can say that dominant

parameters if you have number of

parameters if you have number of independent variables

parameters if you have number of independent variables

and the variable on which

and the variable on which it is

and the variable on which it is completely dependent

e 100359: and the variable on which it is completely dependent.

ad 100359: and the variable on which it is completely dependent.

as

e 100359: OK not completely maximum

e 100359: OK not completely maximum dependent

e 100359: OK not completely maximum dependent there can be many

examples like profit

e 100359: many examples like profit.

ae,

ee 100359: In the case of profit

e 100359: In the case of profit calculation of profit also

e 100359: In the case of profit calculation of profit also you can

Ww, 100359: In the case of profit calculation of profit also you can you

can imagine how many parameters can

can imagine how many parameters can be there and which

ad 100359: can imagine how many parameters can be there and which

e 100359: one is the dominant.

ee 100359: And as per we don't

ee 100359: And as 40 dominant one

e 100359: And as 40 dominant one you can fix

e 100359: And as 40 dominant one you can fix the waiting

e 100359: And as 40 dominant one you can fix the wait is what is the

wait is suppose it's

wait is suppose it's wet days

e 100359: wait is suppose it's wet days.

er 100359: You can say it is

e 100359: You can say it is dominating by 10

e 100359: You can say it is dominating by 10%.

e 100359: You can say it is dominating by 10%.

e 100359: It is the dominating by

e 100359: It is the dominating by 1% it is done

e 100359: It is the dominating by 1% it is dominating by 1

e 100359: It is the dominating by 1% it is dominating by 1% OK this

just an example

ee 100359: just an example.

€® 100359: So

© 100359: So as per this

ee 100359: So as per this wait is.

er 100359: You can predict the

e 100359: You can predict the value of alpha.

e 100359: You can predict the value of alpha.

e 100359: You can predict the value of alpha.

© 100359: OK this

ee 100359: OK this Wednesday is

e 100359: OK this Wednesday is related to your officials

e 100359: OK, this Wednesday is related to your officials.

wr, 100359: OK, this Wednesday is related to your officials.

ee 100359: Then the value of X

e 100359: Then the value of X the weight is of

e 100359: Then the value of X the weight is of your parameter

e 100359: Then the value of X the weight is of your parameter and the

we, 100359: value.
ay

ee 100359: That is the combination the

e 100359: That is the combination the coefficient will be your way

we 100359: That is the combination the coefficient will be your weight

and the value will be your

and the value will be your

ee 100359: and the value will be your X.

ee 100359: and the value will be your X.

ee 100359: and the value will be your X.

ae,

© 100359: OK.

e 100359: Suppose I've written one

e 100359: Suppose I've written one equation like.

SUPPOSE IVE WHILLETI ONE CQUALOTI IKE.

VAI, nANiianl tr

e 100359: Why equal to zero point

> 100359: Why equal to 0.9?

© 100359: Plus

ee 100359: Plus one point

© 100359: Plus 1.2.

© 100359: Plus 1.2.

er 100359: Excellent.

e* 100359: Plus

© 100359: Plus

© 100359: Plus 2X2.

© 100359: Plus 2X2.

ae,

© 100359: Plus 4x3

© 100359: Plus 4x3

100359: Plus 4X3 plus.

eh. 100359: Soon

— PF"

© 100359: Soon.

€* 100359: OK not in this

ee 100359: OK not in this way

ee 100359: OK not in this way there are

e 100359: OK not in this way there are parameter one

e 100359: OK not in this way there are parameter 123 and you

this

the third parameter

the third parameter is most

the third parameter is most dominant because the

- 100359: the third parameter is most dominant because the alpha

ee 100359: value is greater here.

ee 100359: value is greater here.

ae,

e 100359: Then the second number is second

e 100359: Then the second number is second the

e 100359: Then the second number is second the parameter it is more

most dot

most dominant after the third

most dominant after the third one because

most dominant after the third one because it's coefficient is

greater after

greater after that you can come to the

greater after that you can come to the third first one

e 100359: greater. After that you can come to the third first one.

e 100359: greater. After that you can come to the third first one.

e 100359: greater. After that you can come to the third first one.

ee 100359: OK so this way you

ee 100359: OK so this way you

e 100359: OK so this way you miss this is the representation

e 100359: OK so this way you miss this is the representation of your

equation where your alpha is the

equation where your alpha is the call it will be

@ 100359: equation where your alpha is the call it will be coefficient

and when we go for the

and when we go for the it's numerical

and when we go for the it's numerical and examples

a ae

ys.

and when we go for the it's numerical and examples so in

this way now you can imagine

this way now you can imagine how you can

this way now you can imagine how you can proceed with

ee 100359: equations.

ee 100359: equations.

100359: OK.

et 100359: For your simple linear

e 100359: For your simple interrogation they'll be there

e 100359: For your simple interrogation they'll be there will be only

one parameter where

one parameter where one A1 will

one parameter where one A11 will be there first

- 100359: one parameter where one A1 will be there first alpha will be

your constant you can take any

your constant you can take any value in

any value

any value OK

any value OK and these all are

any value OK and these all are initial values that

any value OK and these all are initial values that you can take

© 100359: take.

© 100359: take.

© 100359: take.

© 100359: OK then.

et 100359: It is messy learning and it is

e 100359: It is messy learning and it is go

e 100359: It is messy learning and it is go iteratively so

e 100359: It is messy learning and it is go iteratively so it will go

e 100359: It is messy learning and it is go iteratively so it will go after

will go

will go with various examples

will go with various examples various iterations

will go with various examples various iteration then all

coefficients will be

coefficients will be updated so

coefficients will be updated so this can be the initial

we, 100359: coefficients will be updated so this can be the initial value

you have to take

ee 100359: you have to take.

€* 100359: Is it clear

© 100359: Is it clear?

21BEC10049: Yes, so.

21BEC10049: Yes, so.

21BAI10033: Yes, Sir.

e 100359: OK so this is all yours

ee 100359: OK so this is all your linear

e 100359: OK so this is all your linear equation where you

follow it

follow the linear concepts

follow the linear concepts fine

follow the linear concepts fine now we can

follow the linear concepts fine now we can come back to the

perceptron this

perceptron this is completely

perceptron this is completely different

perceptron this is a completely different thing

e 100359: the perceptron. This is a completely different thing.

e 100359: The perceptron

e 100359: The perceptron is related to you

e 100359: The perceptron is related to your artificial

e 100359: The perceptron is related to your artificial neural network

artificial neural network we have

artificial neural network we have seen by

artificial neural network we have seen by we have

artificial neural network we have seen by we have seen the

e 100359: artificial neural network we have seen by we have seen the

mapping between brain and the new

mapping between brain and the new ones

e 100359: mapping between brain and the neons.

ee 100359: So there was a concept of

e 100359: So there was a concept of artificial

e 100359: So there was a concept of artificial neural network where we

used to create

used to create our own neurons

used to create our own neurons artificial neurons

e 100359: used to create our own neurons, artificial neurons.

e 100359: And the perceptron

e 100359: And the perceptron it is the you can

e 100359: And the perceptron it is the you can say the smallest

the new

the smallest example

the smallest example of the

ee 100359: the smallest example of the.

Se EERE NCEE IN Ee

lal

e 100359: OK the perceptron unit is

e 100359: OK the perceptron unit is used to

e 100359: OK the perceptron unit is used to build a system

e 100359: OK the perceptron unit is used to build a system

e 100359: OK, the perceptron unit is used to build a system.

ee 100359: No because we will

e 100359: No because we will come directly to the

e 100359: No because we will come directly to the this equation

e 100359: No, because we will come directly to the this equation.

id 100359: But that can be

e 100359: There there can be multiple inputs

e 100359: There there can be multiple inputs this can be the

e 100359: There there can be multiple inputs this can be the multiple

parameters

parameters this can be the

parameters this can be the multiple values of

parameters this can be the multiple values of sensors

be any so

be any so these are your

be any so these are your inputs

e 100359: be any. So these are your inputs.

© 100359: OK

e 100359: No for the percent perceptron

e 100359: No for the percent perceptron you can

e 100359: No for the percent perceptron | you can get value either

wo 100359: No for the percent perceptron | you can get value either it is

in the form of one or in

in the form of one or in the form of minus

in the form of one or in the form of minus one it

in the form of one or in the form of minus one it is either

can be yes or

can be yes or it can be no

can be yes or it can be no it it is

can be yes or it can be no it it is not more than that

e 100359: can be yes or it can be no it it is not more than that.

eh 100359: If we ao further

e 100359: If you go further with the air

e 100359: If you go further with the air you can take

e 100359: If you go further with the air you can take uh various classes

e 100359: If you go further with the air you can take uh various classes

OK like we

OK like we have taken example of

OK like we have taken example of animals you just

various

various Classes in the case

various classes in the case of multi

various classes in the case of multi multiple

various classes in the case of multi multiple NN or advanced

we 100359: various classes in the case of multi multiple NN or advanced

version of N you can

version of N you can go for

version of N you can go for

version of N you can go for classification of

version of N you can go for classification of single utterance

single object

single object each object

e 100359: entry single object each object.

ee 100359: But here for the bus | drop

e 100359: But here for the bus | drop which is the mini

e 100359: But here for the bus | drop which is the mini which is the

lowest world then you can say the first

lowest world then you can say the first model

lowest world then you can say the first model here you will

you will either you can

you will either you can get yes or

you will either you can get yes or you can get no

e 100359: you will either you can get yes or you can get no.

e 100359: you will either you can get yes or you can get no.

ee 100359: | again there will be

e 100359: | again there will be there is a concept of

e 100359: | again there will be there is a concept of weight.

ee 100359: That we have discussed

e 100359: That we have discussed the weight of

e 100359: That we have discussed the weight of the parameter

e 100359: That we have discussed the weight of the parameter it is

ee 100359: dependent on.

€® 100359: The

ee 100359: The dominant

e 100359: The dominant how how much

e 100359: The dominant how much your input

e 100359: The dominant how much your input is dominant.

e 100359: The dominant how much your input is dominant.

ee 100359: So as per the weight

e 100359: So as per the weight it is a just a

e 100359: So as per the weight it is a just a calculation if

e 100359: So as per the weight it is a just a calculation if all this adding

We 1UU557: 50 as per the weignt It Is a just a Calculation If all this aaaing

is greater than 0

e 100359: adding is greater than 0.

e 100359: adding is greater than 0.

ae,

ee 100359: Then it is yes

ee 100359: Then it is yes then it will one

e 100359: Then it is yes then it will one it means yes

e 100359: Then it is yes then it will one it means yes otherwise it

e 100359: Then it is yes then it will one it means yes otherwise it it it it

it will not so this is the

it will not so this is the simple model of

it will not so this is the simple model of your EN

e 100359: it will not. So this is the simple model of your EN.

e 100359: it will not. So this is the simple model of your EN.

e 100359: it will not. So this is the simple model of your EN.

ee 100359: Is this a question clear

ee 100359: Is this a question clear?

ee 100359: Is this a question clear?

ee 100359: Is this a question clear?

ee 100359: Is this a question clear?

@ 100359: Is this a question clear?

»1BOE10077: Yes, Sir.

21BEC10049: Get some.

21BAI10033: Yes Sir

21BAI10033: Yes Sir

21BAI10033: Yes Sir

21BAI10033: Yes Sir

21BAI10033: Yes Sir

er 100359: You have you can have multiple

e 100359: You have you can have multiple

e 100359: You have you can have multiple

e 100359: You have you can have multiple

e 100359: You have you can have multiple

ee 100359: Accent.

ae,

ee 100359: This parameters uh this

e 100359: This parameters uh this uh suppose

e 100359: This parameters uh this uh suppose you uh you are

image processing

image processing so now you

image processing so now you can imagine what

- 100359: image processing so now you can imagine what candidate

ee 100359: the parameters of images.

ae,

ee 100359: Suppose you are

e 100359: Suppose you are uh working on the

e 100359: Suppose you are uh working on the signal processing or

sound

sound recognition so there can be

sound recognition so there can be there multiple

e 100359: sound recognition, so there can be there multiple.

ee 100359: Variables multiple

e 100359: Variables multiple parameters these

e 100359: Variables multiple parameters these all the are the

e 100359: Variables multiple parameters these all the are the inputs of

this of

this of one you can say

this of one you can say

this of one you can say either one signal

this of one you can say either one signal or it can be

this of one you can say either one signal or it can be the

calculation of multiple signals

e 100359: calculation of multiple signals.

€® 100359: ok

ee 100359: OK so this is your

e 100359: OK, so this is your input.

er 100359: So after this input

ee 100359: So after this input

e 100359: So after this input if it is parameter one

e 100359: So after this input if it is parameter one

e 100359: So after this input if it is parameter 1P1 or uh if these are the

multiple

multiple parameters now you have

multiple parameters now you have to decide which is

Wy 'VvV~--~/:-

multiple parameters now you have to decide which is the

what what is the weight is of each

what what is the weight is of each parameters

what what is the weight is of each parameters on which

your output is

your output is mostly dependent

e 100359: it your output is mostly dependent.

© 100359: OK.

© 100359: OK.

© 100359: OK.

=

ee 100359: Now you have to define

e 100359: Now you have to define wait for each

e 100359: Now you have to define wait for each parameter suppose

is weight 1 W

is weight 1W 1 W

is weight 1W1W2W

is weight 1 W 1 W 2 WW 3 for

is weight 1 W 1 W 2 WW 3 for each parameter

is weight 1 W 1 W 2 WW 3 for each parameter and

We 1UU557: Is weignt | W I We VWWV 5 Tor eacn parameter and now

what you have to do is you have to

what you have to do is you have to calculate W 1

what you have to do is you have to calculate W 1 cross

what you have to do is you have to calculate W 1 cross X

Wry 100557:

what you have to do is you have to calculate W 1 cross X1 W

f° 100359: 1.

Co] 100359: W1 cross

ee 100359: W1 cross X one this will

e 100359: W1 cross X one this will be the first value

e 100359: W1 cross X one this will be the first value then W2

e 100359: W1 cross X one this will be the first value then W2 cross X

2X2 you will be a second |

2X2 you will be a second input and

2X2 you will be a second input and W2 will wait a second

wait is on that

wait is on that parameter so

wait is on that parameter so similarly you have to

wr, 100359: wait is on that parameter so similarly you have to calculate

this W and

this W and this W zero will be a

this W and this W zero will be a constant that we have

in the linear

in the linear equation equation

ad 100359: in the linear equation equation.

Le

> 100359: If this

ee 100359: If this equation is greater

e 100359: If this equation is greater than 0

e 100359: If this equation is greater than zero if the calculation will be

greater than 0

greater than zero then the

greater than zero then the output will

greater than zero then the output will output will be one

means the classic

means the classification is yes

means the classification is yes means either it can

means the classification is yes means either it can classify

the format of

the format of yes or it can

the format of yes or it can give output as

the format of yes or it can give output as in no means

not going

not going it is not classifying

not going it is not classifying the right object

e 100359: not going. It is not classifying the right object.

© 100359: OK now

ee 100359: OK now is it clear

ee 100359: OK, now is it clear?

ee 100359: OK, now is it clear?

Wry 1UU559. OK, now Is It Clears

a mm rARARAS as Tr

21BOE10025: Yes, Sir.

21BOE10025: Yes, Sir.

© 100359: OK

ee 100359: This is the new

e 100359: This is the new uh temple you're

e 100359: This is the new uh temple neural network

e 100359: This is the new uh temple neural network concept we have

seen uh it

seen uh it earlier also so this

seen uh it earlier also so this is your input

seen uh it earlier also so this is your input there can be

weights

weights that is your net

weights that is your net input functions

weights that is your net input functions it can be summed

it can be

e 100359: summation, it can be multiplication.

e 100359: Then there can be can

e 100359: Then there can be can we activation

e 100359: Then there can be. Can we activation function?

Woy $US OF. THT CHeTe Call VE. Call WE GCIIVALION! TUNCUOT:

=
MER annsco. ni

ee 100359: No this activation function

e 100359: No this activation function there will be one

e 100359: No, this activation function there will be one output.

e 100359: | suppose you

e 100359: | suppose you're output is not

e 100359: | suppose you're output is not matching

e 100359: | suppose you're output is not matching with the real

e 100359: | suppose you're output is not matching with the real output.

& 100359: OK

© 100359: OK so.

=

ee 100359: In that case you

ee 100359: In that case your activation

e 100359: In that case your activation function will

e 100359: In that case, your activation function will.

ee 100359: Go back

ee 100359: Go back to the wettest one.

ee 100359: Go back to the wettest one.

et 100359: Because your input you

e 100359: Because your input you can't change it

e 100359: Because your input you can't change it but wait is you can

ee 100359: change.

© 100359: change.

ae,

e 100359: Suppose the weight

e 100359: Suppose the weight of W one is

e 100359: Suppose the weight of W one is greater than W

e 100359: Suppose the weight of W one is greater than W.

e 100359: Suppose the weight of W one is greater than W.

ee 100359: W one is greater than W2

ee 100359: W one is greater than W2.

ee 100359: Miss W one is more

e 100359: Miss W One is more important.

e 100359: Miss W One is more important.

Co] 100359: For you in in

e 100359: For you in initial case you can take

e 100359: For you in initial case you can take you can say

more

more important so you have

more important so you have given maximum

more important so you have given maximum value to W 1

and after

and after calculation your network

and after calculation your network is finding the

Wy 'VvV~--~/:-

and after calculation your network is finding the output is

not matching with the

not matching with the the

not matching with the the real one

e 100359: is not matching with the the real one.

wr, 100359: is not matching with the the real one.
a |.

ee 100359: OK so you're

e 100359: OK so your activation function what did

e 100359: OK so your activation function what it is doing is

e 100359: OK so your activation function what it is doing is it is just

revising all the weights

revising all the weights again and again

e 100359: revising all the weights again and again.

Wry !UU557. revising all the weignts again and again.

7. .)"

ee 100359: Tell your output is

e 100359: Tell your output is not matching

e 100359: Tell your output is not matching with the correct output

e 100359: Tell your output is not matching with the correct output.

wo 100359: Tell your output is not matching with the correct output.

ian

ee 100359: OK so your iteration will be

e 100359: OK so your iteration will be go on in the machine

e 100359: OK, so your iteration will be go on in the machine learning.

© 100359: And your weight is will be

e 100359: And your weight is will be updated

e 100359: And your weight is will be updated.

ad 100359: And your weight is will be updated.

Lm

ee 100359: So your last wait

ee 100359: So your last wait they

e 100359: So your last wait the last iteration

e 100359: So your last wait the last iteration will change all

e 100359: So your last wait the last iteration will change all the way it is

is whatever you will

is whatever you will insert in the 1st

is whatever you will insert in the 1st 1st

e 100359: is whatever you will insert in the first first quarter, right?

ee 100359: This is the concept

ee 100359: This is the concept of an

e 100359: This is the concept of an or the perceptor

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

e 100359: This is the concept of an or the perceptron model.

©" 100359: This is the

ee 100359: This is the concept of

e 100359: This is the concept of weight that

e 100359: This is the concept of weight that uh that is

e 100359: This is the concept of weight that uh that is to be revised

where

© 100359: Where?

€® 100359: uh.

© 100359: It will be

© 100359: It will be it is initial one

> 100359: It will be it is initial one uh

e 100359: It will be it is initial one uh so it is a

e 100359: It will be it is initial one uh so it is after a few

e 100359: It will be it is initial one uh so it is after a few iteration so

suppose

suppose at the

suppose at the iteration is tense

suppose at the iteration is tense it is started

suppose at the iteration is tense it is started from some value

and

and after each iteration

and after each iteration suppose | call to

and after each iteration suppose | call to 10 then

and after each iteration suppose | call to 10 then | 10

and after each iteration suppose | call to 10 then I-10 value

will be added with the

will be added with the one

will be added with the one

will be added with the 1D and this delta

will be added with the 1D and this delta WI will be

will be added with the one delta and this delta WI will be

that is your

that is your learning rate

ek 100359: Inthe

e 100359: In the when you implement a neural net

e 100359: In the when you implement a neural network

e 100359: In the when you implement a neural network so you have to

define some epochs

define some epochs some iteration values

define some epochs some iteration values that

define some epochs some iteration values that a few terms

you have to

you have to you have to define

you have to you have to define in the

ee, 100359: you have to you have to define in the implementation of

ee 100359: of New Relic.

ee 100359: One target

e 100359: One target target output you have

e 100359: One target target output you have to define

to

to match with the

to match with the uh

e 100359: to match with the uh your actual output.

e 100359: to match with the uh your actual output.

ee 100359: The target output minus

e 100359: The target output minus actual output and

e 100359: The target output minus actual output and your XI

actual stated

© 100359: actual stated.

id 100359: Input value

ee 100359: Input value so in this

e 100359: Input value so in this way you can calculate

e 100359: Input value so in this way you can calculate the W

e 100359: Input value so in this way you can calculate the W and your

W that

W that that will be

100359: W that that will be.

ee 100359: Read read this

> 100359: Wait is it will be a

e 100359: Wait is it will be applied updated after

e 100359: Wait is it will be applied updated after each iteration

e 100359: Wait is it will be applied updated after each iteration till

output is

output is not matched with the

output is not matched with the character

e 100359: output is not matched with the character.

ee 100359: There's a concept

ee 100359: There's a concept clear.

ee 100359: There's a concept clear.

ee 100359: There's a concept clear.

ee 100359: There's a concept clear.

21BOE10025: Yes, Sir.

21BOE10025: Yes, Sir.

© 100359: OK.

_ ee ——_ SS a

21BAI10361: So can you explain that delta

21BAI10361: So can you explain that delta W equation 1

21BAI10361: So can you explain that delta W equation one that TN

21BAI10361: minus?

21BAI10361: minus?

GY UL

) ap "wo

rPAI

ee 100359: See here and is

e 100359: See here and is the learning rate

e 100359: See here and is the learning rate.

e 100359: See here and is the learning rate.

e 100359: You went you you will implement the

e 100359: You went you you will implement the N you have to

your learning rate

your learning rate for your for

e 100359: your learning rate for your for your system.

Wey 'yuusoy. your rearning fate ror your for YOU SYStelm.

7)" ae Theta.

© 100359: That is your

e 100359: That is your target output output

e 100359: That is your target output output means you can say the

ee 100359: correct out.

we 100359: correct out.

Gah.

e 100359: The old that you are finding

e 100359: The old that you are finding after each iteration

e 100359: The old that you are finding after each iteration.

Ww, 100359: The old that you are finding after each iteration.

7.)

e 100359: XI is that your input value

e 100359: XI, is that your input value?

ad 100359: XI, is that your input value?

Lm

ee 100359: In this way you by

e 100359: In this way you by this calculation you can

e 100359: In this way you by this calculation you can calculate delta

and this your delta

and this your delta will be

and this your delta will be added to the previous

@, 100359: and this your delta will be added to the previous document

is and you will get a new

e 100359: is and you will get a new new.

e 100359: is and you will get a new new.

Wet NN TEMS IN aN See

QJIRAIIN2IGE1: OK Cir

© 100359: OK

© 100359: OK

© 100359: OK

© 100359: OK

& 100359: So this

ee 100359: So this these are all the

e 100359: So this these are all the concepts of

e 100359: So this these are all the concepts of your

e 100359: So this these are all the concepts of your module 5

€* 100359: OK.

© 100359: OK.

© 100359: OK.

=

ee 100359: You can go back and see

e 100359: You can go back and see you

e 100359: You can go back and see you check the module file

e 100359: You can go back and see you check the module file if there

is any doubt then you can let me know

is any doubt then you can let me know we will cover

is any doubt then you can let me know we will cover you we

will repeat that

will repeat that part in again

will repeat that part in again and again in the

e 100359: We will repeat that part in again and again in the next.

ee 100359: Today you can

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

e 100359: Today you can start the previous.

er 100359: Whose turn is it

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

ee 100359: Who's turn is it today?

& 100359: Forward chaining

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

e 100359: Forward chaining backward training.

Wor Uys oF. = TUIWAIO CHANING VaACKWalG Uatihg,

i) lannaniwssae

ee 100359: Iman vashu vedant

e 100359: Iman vashu vedant ayushmann

e 100359: Iman Vashu, vedant ayushmann.

100359: Hi, Shane.

© 100359: Hi, Shane.

ae,

ee 100359: Are you all here

ee 100359: Are you all here?

ee 100359: Are you all here?

ee 100359: Are you all here?

ee 100359: Are you all here?

21BAI10450: Yes Sir we are

21BAI10450: Yes, Sir, we are here.

ee 100359: Told the name.

e 100359: So who want to predict who want to be the predictor

tg 100359: So who want to predict who want to

e 100359: So who want to predict who want to

e 100359: So who want to predict who want to

© 100359: OK.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

21BAI10422: So | raise my hand.

Za

e 100359: So what should you got permission

e 100359: So what should you got permission

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

e 100359: So what should you got permission?

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Thank you, Sir.

21BAI10422: Excuse me Sir can you please let me know

21BAI10422: Excuse me Sir can you please let me know if my screen is

21BAI10422: visible to you?

21BAI10422: visible to you?

21BAI10422: visible to you?

21BAI10422: visible to you?

© 100359: Yes this

© 100359: Yes, it's beautiful.

21BAI10422: OK, Sir.

21BAI10422: OK, Sir.

21BAI10422: OK, Sir.

21BAI10422: OK and so before

21BAI10422: OK and so before uh starting this

21BAI10422: OK and so before uh starting this presentation

CIDANIUtCC. UN AIG 50 VETOTE UIT SLATUINIYG UNS PIesertatliOnl IKE | WOUTO

ILA tr ean, that

like to say that one of our members

like to say that one of our members name

like to say that one of our members named once

like to say that one of our members named once wasn't

present today in

present today in this meeting because

present today in this meeting because he had some

appointment important that

appointment important that appointment due

21BAI10422: appointment important that appointment due and because

of that reason wasn't able to

of that reason wasn't able to attend today's meeting

21BAI10422: of that reason wasn't able to attend today's meeting.

21BAI10422: of that reason wasn't able to attend today's meeting.

21BAI10422: of that reason wasn't able to attend today's meeting.

21BAI10422: OK sorry

21BAI10422: OK. Second.

21BAI10422: Good morning Sir to all my fellow

21BAI10422: Good morning Sir to all my fellow classmate today

going to present on the

going to present on the topic forward chaining

backward chaining

21BAI10422: backward chaining.

21BAI10422: First let's have a look

21BAI10422: First let's have a look at the members who have

21BAI10422: First let's have a look at the members who have contributed

in making of this

21BAI10422: in making of this project.

21BAI10422: This is a list of present day

21BAI10422: This is a list of present day presenters.

21BAI10422: Thank you from here my friend

21BAI10422: Thank you. From here my friend has Chandra will take over.

21BAI10450: Yeah thank you also

21BAI10450: Yeah thank you also | will be

21BAI10450: Yeah thank you also I will be explaining today

21BAI10450: Yeah thank you also I will be explaining today forward

chaining so in that

chaining so in that first

chaining so in that first inference engine in

21BAI10450: chaining so in that first inference engine inference engine is

a component in

a component in an expert system

a component in an expert system that uses

a component in an expert system that uses the logical rules

and the knowledge

and the knowledge base to reduce the

and the knowledge base to reduce the information

21BAI10450: and the knowledge base to reduce the information and

reach the conclusion

reach the conclusion it all it

reach the conclusion it all it interprets and evaluates

21BAI10450: reach the conclusion it all it interprets and evaluates the

facts in the knowledge based in

facts in the knowledge based in order to provide an

facts in the knowledge based in order to provide an answer

so forward sharing

so forward sharing

so forward chaining forward chaining is as

21BAI10450: so forward chaining forward chaining is a strategy of an

expert system to answer the question

21BAI10450: expert system to answer the question.

21BAI10450: What can happen next

21BAI10450: What can happen next year the

21BAI10450: What can happen next year the

21BAI10450: What can happen next year the in

21BAI10450: What can happen next year the in in the inference engine

allows the chain of

allows the chain of conditions

allows the chain of conditions follows the

eum allows the chain of conditions follows the chain of conditions

and derivations and finally

and derivations and finally deduces the

and derivations and finally deduces the outcome because

all the facts and

all the facts and rules and

all the facts and rules and sorts them

all the facts and rules and sorts them before concluding to

solution this

solution this types

solution this types strategy is followed for

solution this types strategy is followed for working on

conclusion is that or effect

conclusion is that or effect

21BAI10450: working on conclusion is that or effect.

21BAI10450: Next line please

21BAI10450: Next line please.

21BAI10450: Next line please.

21BAI10450: So definition of

21BAI10450: So definition of forward chaining

21BAI10450: So definition of forward chaining we can

21BAI10450: So definition of forward chaining we can see that forward

chaining is a data driven method

chaining is a data driven method of deriving a

chaining is a data driven method of deriving a particular goal

from a given knowledge

from a given knowledge base and a

from a given knowledge base and a set of inference rules

21BAI10450: from a given knowledge base and a set of inference rules

inference rules are applied by matching

inference rules are applied by matching facts to the

21BAI10450: inference rules are applied by matching facts to the

antecedents of consequence

antecedents of consequence relations in the knowledge

antecedents of consequence relations in the knowledge base

the application of influence

the application of inference rules results in

the application of inference rules results in new knowledge

from the consequence

from the consequence of the relations

from the consequence of the relations match which is then

added to knowledge base

added to knowledge base

added to knowledge base so here are some

21BAI10450: added to knowledge base so here are some properties of

21BAI10450: It follows the

21BAI10450: It follows the bottom

21BAI10450: It follows a bottom up approach

21BAI10450: It follows a bottom up approach the reasoning

21BAI10450: It follows a bottom up approach the reasoning here done

21BAI10450: It follows a bottom up approach the reasoning here done is

from bottom to the

from bottom to the top

from bottom to the top it is also called

21BAI10450: from bottom to the top it is also called data driven approach

as it relies on the existing

as it relies on the existing data to reach the

as it relies on the existing data to reach the goal state

as it relies on the existing data to reach the goal state it is

conclusion driven it

conclusion driven it means that it's

conclusion driven it means that it's objective is to reach the

conclusion from

conclusion from the initial state

conclusion from the initial state it is widely

conclusion from the initial state it is widely used in expert

system like clips and

system like clips and production rule system

21BAI10450: expert system like clips and production rule system.

21BAI10450: expert system like clips and production rule system.

21BAI10450: expert system like clips and production rule system.

21BAI10450: Next slide please.

21BAI10450: Next slide please.

21BAI10450: Next slide please.

21BAI10450: So here we can see an example

21BAI10450: So here we can see an example of a lift

21BAI10450: So here we can see an example of a lift here

21BAI10450: So here we can see an example of a lift here are given some

rules rule 1

rules rule one if

rules rule one if on the 1st floor

rules rule one if on the 1st floor and the button

the 1st floor

the 1st floor and then the door

the 1st floor and then the door must open

the 1st floor and then the door must open second rule

the 1st floor

the 1st floor button is pressed on

the 1st floor button is pressed on 2nd floor then it

21BAI10450: the 1st floor button is pressed on 2nd floor then it should go

to 2nd floor

to 2nd floor rule 3 if one

to 2nd floor rule 3 if one first floor button is pressed on

third floor

third floor it it should go to

third floor it it should go to 3rd floor rule

third floor it it should go to 3rd floor rule 4 if it is

21BAI10450: third floor it it should go to 3rd floor rule 4 if it is on 2nd

floor and the button is pressed on

floor and the button is pressed on 1st floor which

must remember to

must remember to go to the first floor link

must remember to go to the first floor later

must remember to go to the first floor later

CIDA IU*TOYU. .
must remember to go to the first floor later so now let us

imagine that we start the following facts and

imagine that we start the following facts in our database

imagine that we start the following facts in our database fact

niet imagine that we start the following facts in our database fact

at first floor the button

at first floor the button is pressed to the

at first floor the button is pressed to the third floor

21BAI10450: at first floor the button is pressed to the third floor and fact

is today is Tuesday next

is today is Tuesday next slide please

21BAI10450: fact is today is Tuesday. Next slide please.

21BAI10450: fact is today is Tuesday. Next slide please.

21BAI10450: fact is today is Tuesday. Next slide please.

21BAI10450: fact is today is Tuesday. Next slide please.

21BAI10450: No this system

21BAI10450: No this system examines the rules and

21BAI10450: No this system examines the rules and finds the

and two match

and two match the uh

and two match the uh information and the rules

and two match the uh information and the rules given to the

system and

system and hence the

system and hence the rule 3 fires

system and hence the rule 3 fires and its conclusion

system and hence the rule 3 fires and its conclusion go to

3rd floor is added to data

3rd floor is added to database of facts

3rd floor is added to database of facts presumably

21BAI10450: 3rd floor is added to database of facts presumably this

results in the elevator heading towards

results in the elevator heading towards the third floor

21BAI10450: results in the elevator heading towards the third floor note

that fact three was ignored

that fact three was ignored altogether because it

21BAI10450: that fact three was ignored altogether because it did not

match the anticipations of

match the anticipations of any of the rules

21BAI10450: match the anticipations of any of the rules now let us

imagine the elevator is

imagine the elevator is on its way to 3rd

imagine the elevator is on its way to 3rd floor now

on the

on the 1st floor the

on the 1st floor the fact button pressed on

on the 1st floor the fact button pressed on 1st floor is now

added to the database

added to the database which results

added to the database which results in Rule 4 firing

added to the database which results in Rule 4 firing now

us imagine

us imagine an

us imagine an second case that

us imagine an second case that later in the day

us imagine an second case that later in the day fact

contains the

contains the following information

contains the following information fact

contains the following information fact at first floor

button is pressed to this

button is pressed to the second floor

button is pressed to the second floor and factory button

21BA110450: button is pressed to the second floor and factory button is

plus to the third floor in this

plus to the third floor in this case 2 rules

plus to the third floor in this case 2 rules are triggered rule 2

and rule 3

and rule 3 in such cases

and rule 3 in such cases where there is more than one

21BAI10450: 2 and Rule 3. In such cases where there is more than one.

21BAI10450: Possible conclusion conflict

21BAI10450: Possible conclusion conflict resolution needs to be applied

to decide which

to decide which rule to file

to decide which rule to file forward chaining

21BAI10450: to decide which rule to file forward chaining applies a set of

rules and facts to reduce

rules and facts to reduce whatever conclusion

21BAI10450: rules and facts to reduce whatever conclusion can be derived

which is useful and it's

which is useful and a set of facts are

which is useful and a set of facts are basing what you

know what

know what conclusions you are trying to

know what conclusions you are trying to prove

cases forward chaining

cases forward chaining can be inefficient

cases forward chaining can be inefficient because it may end

up providing

up providing providing a number of

up providing providing a number of conclusions that are not

currently interesting

currently interesting or useful

currently interesting or useful in such cases

currently interesting or useful in such cases where single is

specific conclusion is to

specific conclusion is to be proved

CIDAIIUS OU. Pra — oe wee
specific conclusion is to be proved backward chaining is

more appropriate

all

21BAI10450: No from here my

21BAI10450: No from here my friend Emmanuel

21BAI10450: No from here my friend Emmanuel president

21BAI10450: No, from here my friend Emmanuel, President.

21BAI10450: No, from here my friend Emmanuel, President.

21BAI10450: No, from here my friend Emmanuel, President.

21BAI10450: No, from here my friend Emmanuel, President.

21BAI10450: No, from here my friend Emmanuel, President.

21BAI10406: A very good

21BAI10406: A very good explanation of the

21BAI10406: A very good explanation of the forward chaining

CIDA IUTUD. PV VETY GOUUU CAVIAIIAUOTT OF LITE TOPWarO CIIGITHhiG TOW Tet >

get started with

get started with backward chaining

21BAI10406: get started with backward chaining backward chaining is a

concept in artificial

concept in artificial intelligence that

21BAI10406: concept in artificial intelligence that involves backtracking

from the endpoint or the

from the endpoint or the goal

from the endpoint or the goal to the steps that lead to

endpoint this

endpoint this type of chaining

endpoint this type of chaining starts from

endpoint this type of chaining starts from the goal and

moves backward

moves backward to comprehend

moves backward to comprehend the steps that

to attain

to attain this goal the

to attain this goal the backtracking

to attain this goal the backtracking process can also

to attain this goal the backtracking process can also enable a

person to establish

person to establish logical steps that

person to establish logical steps that can be used

person to establish logical steps that can be used to find

other important solutions

21BAI10406: other important solutions.

21BAI10406: Backward chaining can be

21BAI10406: Backward chaining can be used in debugging

21BAI10406: Backward chaining can be used in debugging diagnostics

and a

and a perception applications

21BAI10406: and a perception applications.

21BAI10406: Now let's get to the

21BAI10406: Now let's get to the properties of

21BAI10406: Now let's get to the properties of backward chaining

21BAI10406: slide.

21BAI10406: slide.

21BAI10406: slide.

21BAI10406: slide.

21BAI10406: slide.

21BAI10406: The properties of

21BAI10406: The properties of backward chaining the

21BAI10406: The properties of backward chaining the process used

21BAI10406: The properties of backward chaining the process uses the

process uses an up down

process uses an up down approach or

process uses an up down approach or top to bottom

approach

approach it is a gold

approach it is a gold driven method

approach it is a gold driven method for offering

approach it is a gold driven method for off reasoning the

endpoint goal is

endpoint goal is subdivided into

endpoint goal is subdivided into subgoals to prove that

or facts

or facts a backward

or facts a backward chaining algorithm

or facts a backward chaining algorithm is

or facts a backward chaining algorithm is employed in

inference engines game theory

inference engines game theories and

inference engines game theories and complex databases

inference engines game theories and complex databases the

module peons

module peons interference

module peons interference is

module peons interference is used as a basic

chaining

conditional

conditional statements and

conditional statements and and

conditional statements and and send dents

conditional statements and and sentence are true

21BAI10406: conditional statements and and sentence are true then we

can infer and

21BAI10406: can infer and subsequent.

21BAI10406: Advantages of

21BAI10406: Advantages of backward chaining?

21BAI10406: Advantages of backward chaining?

21BAI10406: The results are always

21BAI10406: The results are always known.

21BAI10406: Uh it is

21BAI10406: Uh it is always faster than

21BAI10406: Uh it is always faster than uh forward chaining

21BAI10406: Uh it is always faster than uh forward chaining as the

are known

are known easy to get

are known easy to get results as

are known easy to get results as if the freedom

are known easy to get results as if the predominant

predetermined rules are followed

predetermined rules are followed did these

predetermined rules are followed disadvantage of

chaining

chaining reasoning can

chaining reasoning can start only if the

chaining reasoning can start only if the endpoint is known

the endpoint is not

the endpoint is not known we cannot

the endpoint is not known we cannot reason reason and

CIDA IUStU¥U. . .
the endpoint is not known we cannot reason reason and use

backward chaining can't

backward chaining can't deduce multiple

backward chaining can't deduce multiple solutions or to

answer

answer and as the goal

answer and as the goal is already set

answer and as the goal is already set it is very less

21BAI10406: answer and as the goal is already set, it is very less flexible.

21BAI10406: answer and as the goal is already set, it is very less flexible.

21BAI10406: And now let's get to an example

21BAI10406: And now let's get to an example of backward chaining

21BAI10406: And now let's get to an example of backward chaining.

21BAI10406: And now let's get to an example of backward chaining.

21BAI10406: And now let's get to an example of backward chaining.

21BAI10406: And now let's get to an example of backward chaining.

21BAI10406: A

21BAI10406: A

21BAI10406: Uh

21BAI10406: Uh backward chaining can be

21BAI10406: Uh backward chaining can be explained

21BAI10406: Uh backward chaining can be explained from the following

sequence

sequence suppose

21BAI10406: sequence. Suppose.

21BAI10406: B is the goal

21BAI10406: B is the goal or

21BAI10406: B is the goal or endpoint that is used

21BAI10406: B is the goal or endpoint that is used as the starting

for backward tracking

for backward tracking a

for backward tracking a in this in in in

for backward tracking a in his in initial state

for backward tracking a in his in initial state

21BAI10406: for backward tracking a in his in initial state sense 8 trends

to Bisa

to B is a fact that must

to B is a fact that must be asserted

to B is a fact that must be asserted to arrive

to B is a fact that must be asserted to arrive at

21BAI10406: to B is a fact that must be asserted to arrive at endpoint B.

21BAI10406: to B is a fact that must be asserted to arrive at endpoint B.

21BAI10406: to B is a fact that must be asserted to arrive at endpoint B.

21BAI10406: A practical example of backward chaining will go as follows

21BAI10406: A practical example of backward chaining will go as follows

Tom is sweating B if

Tom is sweating B if a person is running he

Tom is sweating B if a person is running he will sweat

Tom is sweating B if a person is running he will sweat he will

sweat a trends to B

sweat a trends to B so Tom is

21BAI10406: will sweat a trends to B. So Tom is running.

21BAI10406: A.

21BAI10406: A.

21BAI10406: Thank you and now

21BAI10406: Thank you and now uh now my

21BAI10406: Thank you and now uh now my fellow group member

"

tell you about

tell you about differences between backward

tell you about differences between backward chaining and

tell you about differences between backward chaining and

21BAI10406: and forward chaining.

21BAI10406: and forward chaining.

21BAI10406: and forward chaining.

21BAI10406: The.

21BAI10437: Thank you man

21BAI10437: Thank you man

21BAI10437: Thank you man

21BAI10437: Thank you man

21BAI10437: Thank you man

21BAI10437: Thank you man

21BAI10437: Difference between forward and

21BAI10437: Difference between forward and backward chaining

21BAI10437: Difference between forward and backward chaining forward

chaining is called a data driven

chaining is called a data driven inference technique

backward chaining is called

backward chaining is called gold driven

backward chaining is called gold driven inference technique

21BAI10437: Backward chaining is called gold driven inference technique.

21BAI10437: Forward chaining uses

21BAI10437: Forward chaining uses uh breadth

21BAI10437: Forward chaining uses uh breadth first search strategy

whereas backwards

whereas backward chaining you

whereas backward chaining you depth first search

whereas backward chaining you depth first search that

21BAI10437: whereas backward chaining you depth first search that.

21BAI10437: Two forward chaining start from known

21BAI10437: Two forward chaining start from known facts and apply

inference rule to

inference rule to extract more

inference rule to extract more data unit

inference rule to extract more data unit it reaches to the goal

whereas back

whereas backward chaining starts

whereas backward chaining starts from the goal and

whereas backward chaining starts from the goal and works

backward through

backward through inference rules to

backward through inference rules to find the required

21BAI10437: backward through inference rules to find the required fact

that support the goal

that support the goal forward chaining test

that support the goal forward chaining test for all the

available goals whereas

available goals whereas backward chaining only

21BAI10437: available goals whereas backward chaining only test for a

21BAI10437: few required rules.

21BAI10437: few required rules.

21BAI10437: Text mate.

21BAI10437: Text mate.

21BAI10437: Text mate.

21BAI10437: Text mate.

21BAI10437: Forward chaining

21BAI10437: Forward chaining suitable for the

21BAI10437: Forward chaining suitable for the planning monitoring

control and |

control and interpretation

control and interpretation application

21BAI10437: control and interpretation application backward chaining is

suitable for diagnostics

suitable for diagnostics

suitable for diagnostic prescription and

21BAI10437: suitable for diagnostic prescription and debugging

application forward

application forward chaining can generate

application forward chaining can generate an infinite

number of

number of possible conclusions

number of possible conclusions whereas backward chaining

generate

generate

generate a finite number of possible

generate a finite number of possible conclusions

generate a finite number of possible conclusions it operates

the forward streaming operation

the forward shaming operates in forward direction whereas

21BAI10437: the forward shaming operates in forward direction whereas

backward chaining operates and

backward chaining operates in backward direction

chaining is in

chaining is aimed for any conclusion

21BAI10437: chaining is aimed for any conclusion.

21BAI10437: What else backward training is only

21BAI10437: What else backward training is only in for the

21BAI10437: What else backward training is only in for the required data

did this | would like to

did this | would like to conclude the

did this | would like to conclude the the group project for

group level

group level thank you for your patience and

group level thank you for your patience and time | would

also like to

also like to thank preetam Sir for

also like to thank preetam Sir for giving us an opportunity

21BAI10437: also like to thank preetam Sir for giving us an opportunity to

21BAI10437: represent a good program.

21BAI10437: represent a good program.

21BAI10437: Thank you.

21BAI10437: Thank you.

21BAI10437: Thank you.

21BAI10437: Thank you.

ee 100359: Was absent in this group

ee 100359: Was absent in this group.

ee 100359: Was absent in this group.

21BAI10437: | use my.

21BAI10437: | use my.

© 100359: Hi. OK bye.

21BAI10450: So here's a put it in

21BAI10450: So here's a put it in hospital but yes

21BAI10450: So here's a put it in hospital but he has contributed in

21BAI10450: So here's a put it in hospital but he has contributed in the

make you know the people

21BAI10450: make, you know, the people 10 information.

21BAI10437: Yeah, but.

© 100359: OK, fine.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

© 100359: Any.

Wey 1UUSo7. Any.
ah...

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

e 100359: Any questions from the group?

Lat

ee 100359: No question.

ee 100359: No question.

ee 100359: No question.

21BAI10422: Yes.

ee 100359: OK OK we can move

e 100359: OK, OK. We can move for further.

e 100359: OK, OK. We can move for further.

Lat

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

21BAI10422: OK so.

© 100359: Shahil duras

ee 100359: Shahil duras Arias

e 100359: Shahil Duras, Arias.

e 100359: Shahil Duras, Arias.

ee 100359: Shahil Duras, Arias.

ae,

© 100359: Games

© 100359: Sorry.

© 100359: Sorry.

© 100359: Sorry.

=

ee 100359: Who want to be?

©" 100359: OK.

© 100359: OK.

© 100359: OK.

© 100359: OK.

© 100359: OK.

© 100359: OK.

© 100359: OK.

et 100359: Not all member present

ee 100359: Not all member present.

ee 100359: Not all member present.

ee 100359: Not all member present.

ee 100359: Not all member present.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

21BAS10015: Yes, Sir.

er 100359: That two hand raised

ee 100359: That two hand raised.

e 100359: That two hand raised.

ee 100359: That two hand raised.

ee 100359: That two hand raised.

ee 100359: That two hand raised.

ee 100359: That two hand raised.

ee 100359: That two hand raised.

e 100359: That two hand raised.

ee 100359: That two hand raised.

e 100359: That two hand raised.

tg 100359: You're gonna share and start

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

e 100359: You're gonna share and start.

© 100359: Hey, ash.

© 100359: Hey, ash.

21BAS10015: Is it uh

21BAS10015: Is it uh make

21BAS10015: Is it uh, make.

21BAS10015: I'm not updating

ee 100359: You are a presenter

ee 100359: You are a presenter.

21BAS10015: To make

21BAS10015: To make it

21BAS10015: To make that is going to

21BAS10015: To make that is going to serve the

©" 100359: OK OK

e 100359: Move again phase your

e 100359: Move again. Phase your hand.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

© 100359: OK, OK.

wr, 100359: OK, OK.
a! —_

e 100359: Raise your hand whoever want to Philly

e 100359: Raise your hand. Whoever want to.

e 100359: Raise your hand. Whoever want to.

© 100359: OK.

21BAI10457: Sorry Sir.

21BAI10457: Meeting got crushed

21BAI10457: I'll be presenting

© 100359: No. Yeah.

21BAI10457: Hello

21BAI10457: OK.

21BAI10457: OK.

21BAI10457: Is my screen visible

21BAI10457: Is my screen visible?

21BAI10457: Is my screen visible?

21BAI10457: Uh.

21BAI10457: Uh.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

21BAS10015: Can you translate?

21BAS10015: Can you translate?

21BAS10015: Can you translate?

21BAS10015: Can you translate?

© 100359: Yes.

© 100359: Yes.

21BAS10015: So good morning everyone

21BAS10015: So good morning everyone today our group is

present one

present on this topic

present on this topic ontology

present on this topic ontology

21BAS10015: Sending a technician object

21BAS10015: Sending a technician object events mental

21BAS10015: Sending a technician object events mental events and

21BAS10015: mental object.

21BAS10015: And our group members

21BAS10015: And our group members are Skype

21BAS10015: And our group members are Skype responding who has

been arrested

seen a represented and

seen a represented and said

seen a represented and said and please

seen a represented and said and miss rewards so

21BAS10015: seen a represented and said and miss rewards so the side

that | will miss her

21BAS10015: that | will miss her.

21BAS10015: that | will miss her.

21BAS10015: that | will miss her.

21BAS10015: that | will miss her.

21BAS10015: that | will miss her.

21BAS10012: So what is ontological engineering?

21BAS10012: So what is ontological

21BAS10012: Next slide please.

rs hia

21BAS10012: So I'm trvina

21BAS10012: So on 20 engineering is nothing but

21BAS10012: So on 20 engineering is nothing but defining terms in the

domain and relation among

domain and relation among them it's

domain and relation among them it's basically defining

concepts in the domain

concepts in the domain arranging the concepts

concepts in the domain arranging the concepts in hierarchy

and defining which

and defining which attributes and properties

eee and defining which attributes and properties classes can

have and constraints

have and constraints on their values

have and constraints on their values so the so in

have and constraints on their values so the so in in

21BAS10012: have and constraints on their values so the so in in an easier

way we can say that ontological

way we can say that ontological engineering is a field

" "

21BAS10012: Which studies the

21BAS10012: Which studies the methods and method

21BAS10012: Which studies the methods and methodologies of

21BAS10012: Which studies the methods and methodologies of building

ontologies so now what's

ontologies so now what's So what is now an ontology

ontologies so now what's So what is now an ontology next

21BAS10012: slide, please.

21BAS10012: slide, please.

21BAS10012: slide, please.

21BAS10012: So understanding ontology

21BAS10012: So understanding ontology so ontology based

21BAS10012: So understanding ontology so ontology basically it's just

simple

simple simple it is a set of

simple simple it is a set of concepts and categories

simple simple it is a set of concepts and categories in a

subject area or domain

subject area or domain that shows their properties and

relations between them

21BAS10012: relations between them.

21BAS10012: relations between them.

21BAS10012: Next slide please.

21BAS10012: Next slide please.

21BAS10012: Next slide please.

21BAS10012: So uh upper

21BAS10012: So uh upper ontology so this is an example

21BAS10012: So uh upper ontology so this is an example of an upper

ontology of the world now

ontology of the world now coming to what is upper

ontology

ontology it is nothing but

ontology it is nothing but defining general frameworks

ontology it is nothing but defining general frameworks for

concepts with the more

concepts with the more general concepts

concepts with the more general concepts being at the top

and the more specific

and the more specific concepts coming below

and the more specific concepts coming below the hierarchy

21BAS10012: and the more specific concepts coming below the hierarchy

it's not only it's

it's not only it's called by many names

it's not only it's called by many names like

it's not only it's called by many names like top level ontology

-IDANSIUU TC. Iho THOU OTMY TS Caled DY TIIAny Males HIKE LO IEVE! ONLOIOgy

lanrnr mwmeosy,-!l

upper model ontology or even

upper model ontology or even called founder foundation

ontology so as

ontology so as we can see in this

ontology so as we can see in this the more

ontology so as we can see in this the more

ontology so as we can see in this the more general concepts

21BAS10012: general concepts like you know.

21BAI10457: Yeah

21BAI10457: Yeah

21BAI10457: Yeah

21BAI10457: Yeah

21BAI10457: Yeah

top of the hierarchy whereas the moon special specialized

ones like weight

ones like wait times animals agents are

ones like wait times animals agents are all placed

ones like wait times, animals, agents are all placed below the

21BAS10012: hierarchy.

21BAS10012: So from this it is clear that

21BAS10012: So from this it is clear that each link

21BAS10012: So from this it is clear that each link that the lower

21BAS10012: So from this it is clear that each link that the lower concept is

specialization of the upper one

specialization of the upper one is and

specialization of the upper one is and more importantly that

the specializations

the specializations are not just

the specializations are not just disjoint as it is clearly evident

that

that a human is

that a human is both an animal and an agent

that a human is both an animal and an agent excellently

21BAS10012: please.

21BAS10012: please.

21BAS10012: please.

21BAS10012: please.

21BAS10012: Soso need of

21BAS10012: So so need of ontology

21BAS10012: So so need of ontology So what is the need of

21BAS10012: So so need of ontology So what is the need of ontology so

the first step to develop and

the first step to develop an knowledge representation

system and vocabulary

system and vocabulary is to perform

system and vocabulary is to perform an ontological analysis

of the field this is very

of the field this is very important

of the field this is very important as we can see that the

step to develop

step to develop a representation of

21BAS10012: step to develop a representation of knowledge or

vocabulary starts from an

vocabulary starts from an ontology of the

vocabulary starts from an ontology of the field

21BAS10012: vocabulary starts from an ontology of the field ontology also

enables knowledge sharing

enables knowledge sharing the ontology captures

conceptual structures of the

21BAS10012: conceptual structures of the domain.

21BAS10012: Ontology modeling which

21BAS10012: Ontology modeling which is very important

21BAS10012: Ontology modeling which is very important can help the

cognitive AI or machine

cognitive AI or machine learning model but it broke by

broadening its scope as

broadening its scope as we can as we

broadening its scope as we can as we see in the like in the

tree form is you know

tree form is you know it broadens the

tree form is you know it broadens the concepts which helps

us which is

us which is which makes it very much easier

us which is which makes it very much easier now | would like

to handle the presentation

to handle the presentation to the garage

21BAS10012: like to handle the presentation to the.

21BAI10457: Uh now we are looking

21BAI10457: Uh now we are looking for uh looking

21BAI10457: Uh now we are looking for uh looking into special purpose

21BAI10457: Uh now we are looking for uh looking into special purpose

ontology uh it is

ontology uh it is designed to represent

ontology uh it is designed to represent specific domains of

knowledge it

knowledge it can be generic

knowledge it can be generic immune system

knowledge it can be generic immune system anything

knowledge it can be generic immune system anything now

general purpose on

21BAI10457: general purpose ontologies.

21BAI10457: So the

21BAI10457: So the general purpose ontology

21BAI10457: So the general purpose entology should be applicable

21BAI10457: So the general purpose entology should be applicable in

more or less

more or less any special

more or less any special purpose domain

more or less any special purpose domain it

more or less any special purpose domain it in any

more or less any special purpose domain it in any sufficiently

demanding domain different

demanding domain different areas of knowledge needed

be

21BAI10457: be unified.

21BAI10457: Eason's reasoning

21BAI10457: Eason's reasoning and problem

21BAI10457: Eason's reasoning and problem solving could be involved in

several areas

several areas to in short

21BAI10457: several areas to in short.

21BAI10457: several areas to in short.

21BAI10457: General purpose ontology

21BAI10457: General purpose ontology should be applicable

21BAI10457: General purpose ontology should be applicable in any

21BAI10457: General purpose ontology should be applicable in any

special purpose domain and

special purpose domain and you it

special purpose domain and you it unifies different domains

of knowledge

21BAI10457: of knowledge together.

21BAI10457: of knowledge together.

21BAI10457: of knowledge together.

21BAI10457: of knowledge together.

21BAI10457: Now shreyansh will

21BAI10457: Now shreyansh will continue with uh

21BAI10457: Now shreyansh will continue with uh categories and object

21BAI10457: Now Shreyansh will continue with uh categories and object.

21BAS10015: Thank you so

21BAS10015: Thank you so at the level of

21BAS10015: Thank you so at the level of individual object

21BAS10015: Thank you so at the level of individual object interaction with

the work takes place

the work takes place but

the work takes place but much

the work takes place but much didn't take place at the level

of strategies

of categories so for example

of categories so for example | saw software

of categories so for example | saw soccer would normally

have the goal of

have the goal of buying a

have the goal of buying a basketball rather than a

-1BAS TOUTS: have the goal of buying a basketball rather than a particular

basketball such as BB

basketball such as BB9 next time

21BAS10015: particular basketball such as BB9 next time.

21BAS10015: particular basketball such as BB9 next time.

21BAS10015: particular basketball such as BB9 next time.

21BAS10015: And it will also serve to

21BAS10015: And it will also serve to make predictions

21BAS10015: And it will also serve to make prediction about the

once they are

once they are classified for example

once they are classified for example from

once they are classified for example from an object being

21BAS10015: once they are classified for example from an object being up

Waterman one enforce that it

Waterman one enforce that it would be useful

Waterman one enforce that it would be useful for the food

21BAS10015: Waterman one enforce that it would be useful for the food

21BAS10015: food assignment.

21BAS10015: Yeah representation

21BAS10015: Yeah representation out there

21BAS10015: Yeah, representation out there.

21BAS10015: The decrease in question order another.

21BAS10015: So here we have

21BAS10015: So here we have two choices we represent

21BAS10015: So here we have two choices we represent categories

21BAS10015: So here we have two choices we represent categories one is

uh predicates and

uh predicates and other one is object

uh predicates and other one is object to present

21BAS10015: uh predicates and other one is object to present basketball

in form of

in form of predicates we

in form of predicates we have would be

in form of predicates we have would be used

21BAS10015: in form of predicates we have we use be in record.

21BAS10015: in form of predicates we have we use be in record.

21BAS10015: And Informa object

21BAS10015: And Informa object we just use

21BAS10015: And Informa object we just use basketball.

21BAS10015: Uh missing

21BAS10015: Uh missing

21BAS10015: Uh, missing.

21BAS10015: Uh, missing.

21BAS10015: Categories are

21BAS10015: Categories are organization

21BAS10015: Categories are organizing categories

21BAS10015: Categories are organizing categories to organize and

simplify their knowledge base

simplify the knowledge based through and

21BAS10015: simplify the knowledge based through and inheritance.

21BAS10015: Next step.

21BAS10015: Next step.

21BAS10015: Next step.

21BAS10015: Next step.

21BAS10015: Relation between getting

21BAS10015: Relation between categories you are

21BAS10015: Relation between categories you are more categories

21BAS10015: Relation between categories you are more categories and

artists well if they

artists well if they are

artists well if they are and

21BAS10015: artists. Well if they are.

21BAS10015: May | mean you're explaining article

21BAS10015: May | mean you're expecting a decompression of

21BAS10015: May | mean you're expecting a decompression of class into

categories for the exhaustive

categories for the exhaustive each

categories for the exhaustive each object of mass

belong to

belong to at at least

belong to at at least one

belong to at at least one category of

belong to at at least one category of partition or is

-IDASIUYU TO. VEIONMY LO dal dat least OMe Category OF Pal UItIOll OF IS all

a! a

exhaustive decomposition of class

exhaustive decomposition of class include this voice

21BAS10015: exhaustive decomposition of class include this voice system.

21BAS10015: No salary for

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAS10015: No salary for new with the events.

21BAI10452: Am | audible?

21BAI10452: Am | audible?

21BAI10452: Am | audible

21BAI10457: Ohh.

CIDALIUSOS. UTITt.

JIHDACINNAIC. te thanver

21BAS10015: Is there?

21BAS10015: Is there?

21BAI10452: The concept of event

21BAI10452: The concept of event calculus allows us to deal

21BAI10452: The concept of event calculus allows us to deal about time

and temporal intervals

and temporal intervals movements and

and temporal intervals movements and extended intervals

are two types of time in

are two types of time intervals

are two types of time intervals the next step is to

"Ff

time scale and

time scale and link points on this

time scale and link points on the scale to

21BAI10452: time scale and link points on the scale two movements

21BAI10452: giving us absolute timings.

cIBAIIU45¢: giving us absolute timings.

AAMAIARAEFSA -)

21BAI10452: The time scale is arbitrary

21BAI10452: The time scale is arbitrary.

21BAI10452: We measure it in seconds and

21BAI10452: We measure it in seconds and call the movement

21BAI10452: We measure it in seconds and call the movement R 12 AM

AM on January 1st

AM on January 1st nineteen 00

AM on January 1st 19 zero zero as time 0

21BAI10452: AM on January 1st 19 zero zero as time 0.

21BAI10452: Defunction begin

21BAI10452: Defunction begin and end select the earliest

21BAI10452: Defunction begin and end select the earliest and latest

movements in an

movements in an interval respectively

movements in an interval respectively whereas

movements in an interval respectively whereas the function

time returns the

time returns the time scale point for

time returns the time scale point for a given movement

time returns the time scale point for a given moment the

duration function returns the

duration function returns the difference between the

and the finish

and the finish times

and the finish times can you please change the slide

21BAI10452: and the finish times. Can you please change the slide?

21BAI10452: and the finish times. Can you please change the slide?

21BAI10452: and the finish times. Can you please change the slide?

21BAI10452: Process categories of

21BAI10452: Process categories of event.

21BAI10452: With these

21BAI10452: With these property intervals

21BAI10452: With these property intervals events that include as

eee ee ee eee eee De eT SEIS PE ie Me Oh

avantc

events all events occur

events all events occur subevents all

events all events occur sub events all events occurring in a

given time period

given time period places

given time period places special

given time period places special sections of a

given time period places special sections of a spatial

temporal universe that

temporal universe that extend through time

temporal universe that extend through time location

function maps

function maps and object

function maps and object to the smallest space

CIDANIIU*tTOC. . . .
function maps and object to the smallest space that contains

it now now |

it now now | would like add

it now now | would like add it to continue

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAI10452: contains it. Now. Now | would like add it to continue.

21BAS10009: OK, so am | audible?

21BAS10009: OKsoam|

21BAS10009: OK so uh mental events and

21BAS10009: OK so uh mental events and mental objects

21BAS10009: OK so uh mental events and mental objects basically

21BAS10009: OK so uh mental events and mental objects basically events

that use logic and objects

that use logic and objects that use logic but

21BAS10009: that use logic and objects that use logic but let us

understand that in more broader

understand that in more broader sense now

understand that in more broader sense now mentally

understand that in more broader sense now mentally events

21BAS10009: understand that in more broader sense now mentally events.

21BAS10009: Uh so basically knowledge about

21BAS10009: Uh so basically knowledge about one's own

21BAS10009: Uh so basically knowledge about one's own knowledge and

reasoning processes is

reasoning processes is useful for controlling

reasoning processes is useful for controlling inference

-IBDASIUUUZ. ~reasoning processes Is useTul Tor controning interence now

what this means is

21BAS10009: what this means is.

21BAS10009: What is knowledge base of the

21BAS10009: What is knowledge base of the agent or

21BAS10009: What is knowledge base of the agent or what knowledge the

agent already has

agent already has what are the

agent already has what are the knowledges they need

21BAS10009: agent already has what are the knowledges they need what

they don't have and don't

they don't have and don't need in terms of

21BAS10009: they don't have and don't need in terms of knowledges

essentially we know knowing

essentially we know knowing these things

essentially we know knowing these things it is

21BAS10009: essentially we know knowing these things it is really

important and really helpful

important and really helpful essentially these

important and really helpful essentially these are mental

events now

events now

21BAS10009: mental events now.

21BAS10009: mental events now.

21BAS10009: Coming to mental objects next

21BAS10009: Coming to mental objects next slide please

21BAS10009: Coming to mental objects, next slide please.

21BAS10009: Coming to mental objects, next slide please.

21BAS10009: So.

21BAS10009: So.

21BAS10009: Mental objects uh

21BAS10009: Mental objects uh well they

21BAS10009: Mental objects uh well they are range of

21BAS10009: Mental objects uh well they are range of what one has

perceived

perceived discovered or

perceived discovered or learned

perceived discovered or learned basically objects such

21BAS10009: perceived discovered or learned basically objects such as

beliefs knows bonds

beliefs knows bonds haves

beliefs knows bonds haves needs intentions and

beliefs knows bonds haves needs intentions and etcetera

beliefs knows bonds haves needs intentions and et cetera let

me explain that

me explain that with

me explain that with example next slide

21BAS10009: Let me explain that with example. Next slide please.

21BAS10009: Let me explain that with example. Next slide please.

21BAS10009: Let me explain that with example. Next slide please.

21BAS10009: So Mary

21BAS10009: So Mary asks John

21BAS10009: So Mary asks John what is the square root of

21BAS10009: So Mary asks John what is sqrt 720

21BAS10009: So Mary asks John what is sqrt 729 and

21BAS10009: So Mary asks John what is sqrt 729 and John replies | don't

know but

know but marry still insist

know but marry still insists him now

know but marry still insists him now here John should

that with some more

that with some more thought this

that with some more thought this question can in fact

answered

answered so this

answered so this realization that

answered so this realization that John has

21BAS10009: can in fact be answered. So this realization that John has is.

21BAS10009: Nothing but like

21BAS10009: Nothing but acknowledging

21BAS10009: Nothing but acknowledging ones own knowledge

21BAS10009: Nothing but acknowledging ones own knowledge so

mental event

mental event and

21BAS10009: a mental event and.

21BAS10009: Next slide.

21BAS10009: Next slide.

21BAS10009: Next slide.

21BAS10009: Uh

21BAS10009: Uh relationship

21BAS10009: Uh relationship between agents

21BAS10009: Uh relationship between agents and mental

21BAS10009: Uh relationship between agents and mental objects are

called as

called as propositional attitude

called as propositional attitudes

called as propositional attitudes explaining this

ales eellead] as propositional attitudes explaining this with classic

example of loyce and

example of Lois and Superman so

example of Lois and Superman so Lois knows that

21 BAS 10009: example of Lois and Superman so Lois knows that Superman

can fly but

can fly but of course she

can fly but of course she knows because she

can fly but of course she knows because she might have

seen him fly

seen him fly so this is

seen him fly so this is a part of her

seen him fly so this is a part of her knowledge because

has seen him

has seen him so this also

has seen him so this also becomes mental object

because she has seen him. So this also becomes mental

21BAS10009: And.

21BAS10009: And.

21BAS10009: If Clark is

21BAS10009: If Clark is Superman then

21BAS10009: If Clark is Superman then Lois should also

21BAS10009: If Clark is Superman then Lois should also know that Clark

can fly too

can fly too so this

can fly too so this is this condition

can fly too so this is this conditional

can fly too so this is this conditional statement

can fly too so this is this conditional statement that if Clark is

21BAS10009: is Superman.

re

21BAS10009:_ If Lois

21BAS10009: If Lois knows that if

21BAS10009: If Lois knows that if uh Clark is

21BAS10009: If Lois knows that if uh Clark is Superman this is

21BAS10009: If Lois knows that if uh Clark is Superman, this is a belief.

21BAS10009: If Lois knows that if uh Clark is Superman, this is a belief.

21BAS10009: So.

21BAS10009: Yeah that brings me

21BAS10009: Yeah, that brings me to.

-IDASIUUUZ:, =Yean, that rings me to.

Sa A ARRAN -)

21BAS10009: The interesting

21BAS10009: The interesting property of referential

21BAS10009: The interesting property of referential transparency

21BAS10009: The interesting property of referential transparency now

21BAS10009: The interesting property of referential transparency now.

21BAS10009: And agent knows 2

21BAS10009: And agent knows 2 facts number one

21BAS10009: And agent knows 2 facts number 12 plus

21BAS10009: And agent knows 2 facts number one 2 + 2 is equal to

21BAS10009: And agent knows 2 facts number one 2 + 2 is equal to four

and number

#2 that four is less than

#2 that four is less than five then the

#2 that four is less than five then the agent should also know

that 2 plus

that 2 + 2 is less than five

that 2 + 2 is less than five so

that 2 + 2 is less than five so basically reference

eIDASIUUUZ: tnat c + IS less than Tive So basically reterence tnis Is

cr ten

referential transparency and

referential transparency and it simply

referential transparency and it Simply put

referential transparency and it simply putting together and

processing two pieces

processing two pieces of

processing two pieces of knowledge

21BAS10009: processing two pieces of knowledge.

21BAS10009: Using logic and arriving

21BAS10009: Using logic and arriving to

21BAS10009: Using logic and arriving to a conclusion which

21BAS10009: Using logic and arriving to a conclusion which is also a

21BAS10009: Using logic and arriving to a conclusion which is also a no

knowledge and

21BAS10009: knowledge and fact.

21BAS10009: knowledge and fact.

21BAS10009: I've been going on about a

21BAS10009: I've been going on about knowledge and

21BAS10009: I've been going on about knowledge and facts

21BAS10009: I've been going on about knowledge and facts.

21BAS10009: The knowledge and sorry

21BAS10009: The knowledge and sorry knowledge and beliefs but

21BAS10009: The knowledge and sorry knowledge and beliefs but what

are beliefs and knowledge

are beliefs and knowledge so

are beliefs and knowledge so beliefs well

are beliefs and knowledge so beliefs well belief

are beliefs and knowledge so beliefs well belief are

assumptions made

assumptions made and based on these

assumptions made and based on these assumptions we

actions

actions but in

actions but in AI terms

actions but in AI terms beliefs

actions but in AI terms beliefs are something that deal

probability

probability believes

probability believes also change with

21BAS10009: probability believes also change with time.

21BAS10009: No knowledge

21BAS10009: No knowledge knowledge is

21BAS10009: No knowledge knowledge is something which is always

21BAS10009: No knowledge knowledge is something which is always true.

21BAS10009: No knowledge knowledge is something which is always true.

21BAS10009: Facts if you will

21BAS10009: Facts if you will so

21BAS10009: Facts if you will so after extensive

21BAS10009: Facts if you will so after extensive research it was

21BAS10009: Facts if you will so after extensive research it was concluded

that knowledge is

that knowledge is nothing but justified

21BAS10009: that knowledge is nothing but justified belief.

21BAS10009: that knowledge is nothing but justified belief.

21BAS10009: With that | conclude our presentation

21BAS10009: With that | conclude our presentation

21BAS10009: With that | conclude our presentation thank you Sir

—E ee ER EEE EE ee MES

VOLIL MV

you my fellow classmates

21BAS10009: you, my fellow classmates.

21BAS10009: Any queries

21BAS10009: Any queries and questions are

21BAS10009: Any queries and questions are welcome.

21BAS10009: Any queries and questions are welcome.

21BAS10009: Any queries and questions are welcome.

21BAS10009: Any queries and questions are welcome.

21BAS10009: Any queries and questions are welcome.

-

ee 100359: Any question?

a

© 100359: So.

21BAI10405: Ohh yes so actually | had a question

21BAI10405: Ohh yes so actually | had a question ohh can

21BAI10405: Ohh yes so actually | had a question ohh can you tell us the

difference between like movements

difference between like movements and extended

like

like differentiate on

e 100359: Hey.

© 100359: Hey.

Wor 'Vyso7. = Piey.

AQADAIITNAC?. The ANiflavnnen fe thant

21BAI10452: The difference is that only

21BAI10452: The difference is that only have for

21BAI10452: The difference is that only have by duration of 0.

21BAI10452: The difference is that only have by duration of 0.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

21BAI10405: OK, OK.

e 100359: So there's no other question

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

e 100359: So there's no other question.

ee 100359: So there's no other question.

Lat

© 100359: OK.

© 100359: Next is Asher

ee 100359: Next is Asher

© 100359: Next is Asher.

a

ee 100359: She she wants.

Wee 1UUSo7. one sne wants.
<1)" A _¢...4h..

100359: Actuation and

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

ee 100359: Actuation and never.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. | have raised my hand.

21BAS10050: Yes, Sir. I have raised my hand.

21BAS10050: Yes, Sir. I have raised my hand.

21BAS10050: Yes, Sir. I have raised my hand.

—

© 100359: You finish it.

© 100359: You finish it.

© 100359: You finish it.

21BAS10050: My screen visible Sir

21BAS10050: My screen visible Sir.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

© 100359: Yes.

21BAS10029: A very good morning to one and all present here today our

group will be talking about

group will be talking about architecture for

group will be talking about architecture for intelligent agents

21BAS10029: agents.

21BAS10029: agents.

21BAS10029: agents.

21BAS10029: agents.

21BAS10029: agents.

21BAS10029: Here are a group

21BAS10029: Here are our group members

21BAS10029: Here are our group members as she my

21BAS10029: Here are our group members as she myself karashi

shreevatsa

21BAS10029: angelfish and.

21BAS10029: angelfish and.

21BAS10029: angelfish and.

21BAS10029: angelfish and.

21BAS10029: angelfish and.

21BAS10029: angelfish and.

21BAS10029: The main topics that will be

21BAS10029: The main topics that will be covering today will be in

SIDAND IUU CI. LTE Tlaltlh COMICS Ullal Will DE COVETITIQ LOUay Will Ve

a a a on ae oe

introduction to agent architectures

introduction to agent architectures main types of agent

architectures and

21BAS10029: architectures and layered architecture.

21BAS10029: architectures and layered architecture.

21BAS10029: architectures and layered architecture.

21BAS10029: architectures and layered architecture.

21BAS10029: architectures and layered architecture.

21BAS10029: So let's first understand

21BAS10029: So let's first understand what is a

21BAS10029: So let's first understand what is agent architecture.

21BAS10029: So let's first understand what is agent architecture.

21BAS10029: So let's first understand what is agent architecture.

21BAS10029: So let's first understand what is agent architecture.

21BAS10029: So let's first understand what is agent architecture.

21BAS10029: By definition

21BAS10029: By definition an

21BAS10029: By definition an architecture proposes a specific

21BAS10029: By definition an architecture proposes a specific

methodology for building and

methodology for building an autonomous agent

21BAS10029: methodology for building an autonomous agent.

21BAS10029: Agent architecture has been

21BAS10029: Agent architecture has been one of the cool

21BAS10029: Agent architecture has been one of the cool components in

21BAS10029: building an agent application.

21BAS10029: building an agent application.

21BAS10029: It is considered as the

21BAS10029: It is considered as the functional brain of

21BAS10029: It is considered as the functional brain of an aging in

decision and

decision and reasoning to solve

decision and reasoning to solve problems and achieve

decision and reasoning to solve problems and achieve goals

it specifies how

it specifies how the construction of an

it specifies how the construction of an agent can be

decomposed into

decomposed into subproblems and

decomposed into subproblems and how these modules

should be made to

should be made to interact

should be made to interact these two aspects to

define

define how the sensor data and the

define how the sensor data and the current internal

the agent

the agent determines the

the agent determines the actions and future

21BAS10029: the agent determines the actions and future internal state of

21BAS10029: the agent.

21BAS10029: the agent.

21BAS10029: the agent.

21BAS10029: the agent.

I

21BAS10029: Tvnes of agent

21BAS10029: Types of agent architectures

21BAS10029: Types of agent architectures there are three kinds of a

21BAS10029: Types of agent architectures there are three kinds of agent

21BAS10029: architectures.

21BAS10029: architectures.

21BAS10029: architectures.

21BAS10029: Reactive deliberative and

21BAS10029: Reactive deliberative and hybrid architecture

21BAS10029: Reactive deliberative and hybrid architecture now reactive

architecture will be explained

architecture will be explained by the

21BAS10029: architecture will be explained by then. Thank you.

21BAS10029: architecture will be explained by then. Thank you.

21BAS10029: architecture will be explained by then. Thank you.

21BAS10029: architecture will be explained by then. Thank you.

21BAS10029: architecture will be explained by then. Thank you.

21BAS10064: The active architecture reactive programming isn't

21BAS10064: The active architecture reactive programming isn't rescue

logical programming but it

logical programming but it isn't concerned with

logical programming but it isn't concerned with stream of

information and propagation of

information and propagation of charges

-IBAS1UU04: = IntTormation ana propagation of charges reactive arcnitecture

is nothing more than combination

is nothing more than combination of reactive programming

21BAS10064: programming and.

21BAS10064: programming and.

21BAS10064: Software architecture also

21BAS10064: Software architecture also known as reactive system

21BAS10064: Software architecture also known as reactive system the pool

is to make the system response

is to make the system responsive

is to make the system responsive resilient

21BAS10064: is to make the system responsive resilient elastic and

message even idiotic system with

message even idiotic system with an

—- I! DMO 1UUU. soe . . .
message even idiotic system is an architectural system that

allows multiple individual

allows multiple individual application to

allows multiple individual application to police as

allows multiple individual application to police as single unit

reacting

reacting to its surroundings

reacting to its surrounding while aware of

21BAS10064: reacting to its surrounding while aware of.

21BAS10064: Each other and

21BAS10064: Each other and enabling

21BAS10064: Each other and enabling automatic scale up and

21BAS10064: Each other and enabling automatic scale up and down

21BAS10064: Each other and enabling automatic scale up and down load

balancing responsive under failure

balancing responsive under failure and

balancing responsive under failure and more reactive

21BAS10064: balancing responsive under failure and more reactive

architecture can elastically scale

architecture can elastically scale in the face of

architecture can elastically scale in the face of varying

incoming traffic

incoming traffic scaling usually

incoming traffic scaling usually say we are

incoming traffic scaling usually say we are one of

purposes either we need

purposes either we need to scale out

purposes either we need to scale out by adding more

machines or

machines or scale out by

machines or scale out by be feeling

machines or scale out by be filling machines

machines or scale out by be filling machines or we need to

scale down

scale down reducing the

scale down reducing the number of resources OK

21BAS10064: scale down, reducing the number of resources occupied by.

21BAS10064: You're a bigger sense it's like

21BAS10064: You're a bigger sense. It's like.

21BAS10064: You're a bigger sense. It's like.

21BAS10064: You're a bigger sense. It's like.

- I DAS IUU0S, =TOUTE d VIGYGE! SETISE. It Ss HIKE.

JHDACAINNLCA. DARnKetnsnr

21BAS10064: Reactive archive

21BAS10064: Reactive archive reactive manifesto author of

21BAS10064: Reactive archive reactive manifesto author of reactive

manifesto believe that

manifesto believe that reactive systems

21BAS10064: Manifesto. Believe that reactive systems are.

21BAS10064: Manifesto. Believe that reactive systems are.

21BAS10064: Responsive resilient

21BAS10064: Responsive resilient elastic and message driven

21BAS10064: Responsive, resilient, elastic and message driven.

rs re

21BAS10064: Testing.

—— ws

21BAS10064: Testing.

21BAS10064: So now we can see the

21BAS10064: So now we can see the benefits of

21BAS10064: So now we can see the benefits of reactive architecture

PE Na ET IN ON OR SOE OE LEIS MEISTER WE PENI CENCE TERN

acrtiialhy tha

21BAS10064: actually the.

21BAS10064: Benefits are

21BAS10064: Benefits are it to be

21BAS10064: Benefits are it to be responsive to

21BAS10064: Benefits are it to be responsive to interaction

21BAS10064: Benefits are it to be responsive to interaction with the users

eae ee eee eee eee eee eee ee ee SEN el we

IIRASINNGA: Wandla

21BAS10064: Handle failure and remain available

21BAS10064: Handle failure and remain available during outage

21BAS10064: Handle failure and remain available during outage strived

during varying loop conditions

during varying loop conditions and be able

during varying loop conditions and be able to send

and

and root message in

and root message in varying network

21BAS10064: and root message in varying network condition.

21BAS10064: Now | would like to

21BAS10064: Now | would like to.

21BAS10064: Now| would like to.

21BAS10064: Call my friend for next slide

21BAS10064: Call my friend for next slide.

21BAS10064: Call my friend for next slide.

21BAS10064: Call my friend for next slide.

21BAS10064: Call my friend for next slide.

21BAS10021: Well I'll be explaining the

21BAS10021: Well I'll be explaining deliberative architecture

21BAS10021: Well I'll be explaining deliberative architecture a deliberative

agent or deliberative

agent or deliberative agent architecture

agent or deliberative agent architecture is defined as

agent or deliberative agent architecture is defined as an

agent that contains an

agent that contains an explicitly represented

-IDANDIUUCT. = aAQGerit Uldt COMLAITIS all CAVHCIUY TEVIEeserled SYMON MIOUGE!

~fLehnnr vroawl

of the real world and then with this

21BAS10021: symbolic model of the real world. And then with this.

21BAS10021: symbolic model of the real world. And then with this.

21BAS10021: Based on patterns

21BAS10021: Based on pattern.

21BAS10021: Based on pattern.

21BAS10021: Please

21BAS10021: Please

21BAS10021: Please

21BAS10021: Please

21BAS10021: Symbolic.

21BAS10021: Symbolic.

21BAS10021: Symbolic.

21BAS10021: Deliberative agents behave more like they are

21BAS10021: Deliberative agents behave more like they are thinking by

searching through a special

searching through a special behaviors maintaining

21BAS10021: searching through a special behaviors maintaining internal

state and predicting the

state and predicting the effects of actions

—IDASIUUCT. = stdl€, dil VIealCluiigy UIE EMEeCts OF dCuOrls.

JHDACANNAA. Ther nanvpaninanm i-

21BAS10021: The paradigm is known as symbolic

21BAS10021: The paradigm is known as symbolic.

21BAS10021: The paradigm is known as symbolic.

21BAS10021: The paradigm is known as symbolic.

21BAS10021: The paradigm is known as symbolic.

21BAS10021: The paradigm is known as symbolic.

21BAS10021: Now how does

21BAS10021: Now how does it exactly an agent

21BAS10021: Now how does it exactly an agent deliberate

21BAS10021: Now how does it exactly an agent deliberate so it has two

steps to it first

steps to it first is option

21BAS10021: steps to it? First is option generation.

21BAS10021: The agent tries to understand

21BAS10021: The agent tries to understand what the available

21BAS10021: The agent tries to understand what the available options are

and then generates a set

and then generates a set of alternatives to

21BAS10021: and then generates a set of alternatives to its goals and

21BAS10021: desires.

21BAS10021: Not filtering now

21BAS10021: Not filtering not filtering

21BAS10021: Not filtering not filtering is the process in which the

now chooses between

now chooses between the options and

21BAS10021: now chooses between. The options are committed to one.

21BAS10021: Uh

21BAS10021: Uh to achieve it?

21BAS10021: Uh to achieve it?

21BAS10021: Now we have the figure of

21BAS10021: Now we have the figure of a deliberate agent here

-IDAS1UUCI: INOW We nave the Tigure of a deliberate agent nere we nave

the percepts it has

the percepts it has its goal the

the percepts it has its goal the alternative is selected

21BAS10021: the percepts. It has its goal. The alternative is selects.

21BAS10021: An alternative based on

21BAS10021: An alternative based on its goal

21BAS10021: An alternative based on its goal and

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: An alternative based on its goal and it commits the action.

21BAS10021: Now deliberative

21BAS10021: Now deliberative architecture use

21BAS10021: Now deliberative architecture use the BDI

21BAS10021: Now deliberative architecture use the BDI architecture of the

belief desire intention

belief desire intention architecture

belief desire intention architecture this architecture has

key symbolic

key symbolic data structures

key symbolic data structures applying lab

key symbolic data structures applying a plan library

21BAS10021: key symbolic data structures applying a plan library beliefs

which are the information

which are the information available to the agent

which are the information available to the agent goals or

desires the things that they

desires the things that they agent would like to

through and the

through and the intentions

through and the intentions the goal that is as

all

agent has

agent has chosen and committed to

agent has chosen and committed to here we have a

agent has chosen and committed to here we have a figure or

a process of how

a process of how this is a

21BAS10021: figure or a process of how this is a BDI.

21BAS10021: The architecture

21BAS10021: The architecture figure and we

21BAS10021: The architecture figure and we will see how it works

21BAS10021: The architecture figure and we will see how it works the

process of

process of it here it is

process of it it is as follows as sensory input

21BAS10021: process of it it is as follows as sensory input is received by

the belief revision function

the belief revision function and agents

the belief revision function and agents beliefs are altered

21BAS10021: the belief revision function and agents beliefs are altered.

21BAS10021: Often the nation function

21BAS10021: Often the nation function evaluates altered

21BAS10021: Often the nation function evaluates altered beliefs.

21BAS10021: An intern

21BAS10021: And intentions and fears

21BAS10021: And intentions and fears the options available to

21BAS10021: And intentions and fears the options available to the agent

the agent desires are then

the agent desires are then constituted

the agent desires are then constituted now the filter

then considers current

then considers current beliefs

then considers current beliefs desires and intentions

21BAS10021: then considers current beliefs desires and intentions and

produces new intention based on

produces new intention based on it last

produces new intention based on it lastly the action

selection function

selection function then receives the intent

selection function then receives the intentions from the filler

filter function and

filter function and decides what action to perform

21BAS10021: perform.

21BAS10021: perform.

21BAS10021: perform.

21BAS10021: perform.

21BAS10021: perform.

21BAS10021: Now lastly deliberative

21BAS10021: Now lastly deliberative versus reactive

21BAS10021: Now, lastly, deliberative versus reactive architecture.

21BAS10021: Now, lastly, deliberative versus reactive architecture.

21BAS10021: No deliberative

21BAS10021: No deliberative architectures are also sometimes

21BAS10021: No deliberative architectures are also sometimes known as

proactive architecture

proactive architecture and

proactive architecture and therefore it is the

proactive architecture and therefore it is the complete

opposite of the reactive architecture

opposite of the reactive architecture although the

between and

between and

between and reactive and deliberative

"1282 '~""" between and reactive and deliberative agents can be

somewhat blurry and agent with

somewhat blurry and agent with no internal state

somewhat blurry and agent with no internal state is certainly

reactive and one with

reactive and one with visits

21BAS10021: reactive and one with visits.

21BAS10021: This is it's actions on the predicted actions

21BAS10021: This is it's actions on the predicted actions of other agents

deliberately

deliberative even though

deliberative even though deliberative agents

more system

more system resources than their

more system resources than they reactive colleagues

results are significantly

results are significantly better just in a

results are significantly better just in a few special situation

whereas it is

whereas it is usually possible to

whereas it is usually possible to replace one

21BAS10021: whereas it is usually possible to replace one deliberative

agent with few reactive

agent with few reactive ones in many cases

21BAS10021: agent with few reactive ones in many cases.

21BAS10021: agent with few reactive ones in many cases.

21BAS10021: Only

21BAS10021: Only at the traditional

21BAS10021: Only at the traditional deliberative agents are

21BAS10021: Only at the traditional deliberative agents are maybe usable

especially when where correct action

especially when where correct action is required for their

ability to produce

ability to produce optimal

ability to produce optimal domain independent

ability to produce optimal domain independent solutions

while they often fail

while they often fail when there is a

while they often fail when there is a dynamic environment

21BAS10021: While they often fail when there is a dynamic environment.

21BAS10021: Because uh

21BAS10021: Because uh they cannot replant

21BAS10021: Because uh they cannot replant the actions quickly

now | would like to

now | would like to consume us further

now | would like to consumers for the hybrid regions

21BAS10021: Now | would like to consumers for the hybrid regions.

21BAS10050: Hybrid agents

21BAS10050: Hybrid agents are kind of

21BAS10050: Hybrid agents are kind of agent which combine the

of two or more

of two or more other agents

of two or more other agents these types

of two or more other agents these types of agents try to

combine the speed of

combine the speed of reactive agents

combine the speed of reactive agents with the power of

deliberative agents

21BAS10050: deliberative agents.

21BAS10050: As we have seen before

21BAS10050: As we have seen before in symbolic AI

21BAS10050: As we have seen before in symbolic AI humans must supply

a knowledge base

a knowledge base that they BAI uses

a knowledge base that they BAI uses to answer

21BAS10050: a knowledge base that they BAI uses to answer questions.

21BAS10050: And deep Nets are

21BAS10050: And deep Nets are trained to arrive at

21BAS10050: And deep Nets are trained to arrive at correct answers

hybrid area

hybrid area uses deep Nets

hybrid area uses deep Nets to generate only those

of the knowledge base

of the knowledge base that it needs

of the knowledge base that it needs to answer a given

question

question here we can see in the

question here we can see in the below diagram how

21BAS10050: question here we can see in the below diagram how a hybrid

AI utilizes both symbolic

AI utilizes both symbolic AI and deep

21BAS10050: hybrid AI utilizes both symbolic AI and deep Nets.

21BAS10050: hybrid AI utilizes both symbolic AI and deep Nets.

21BAS10050: hybrid AI utilizes both symbolic AI and deep Nets.

21BAS10050: So examples

21BAS10050: So examples of hybrid

21BAS10050: So examples of hybrid agents are interrupt

21BAS10050: So examples of hybrid agents are interrupt neuro

concept learner

concept learner Google search

concept learner Google search engine and alpha

21BAS10050: concept learner, Google search engine and alpha goal.

21BAS10050: Interop was developed in

21BAS10050: Interop was developed in order to meet the

21BAS10050: Interop was developed in order to meet the requirements of

modeling dynamic agents

modeling dynamic agents societies such as

modeling dynamic agents societies such as interacting

robots it's main

robots it's main feature is that it

robots it's main feature is that it combines patterns of

behavior with the

behavior with explicit planning facilities

21BAS10050: behavior with explicit planning facilities.

21BAS10050: Then all of this was

21BAS10050: Then all of this was achieved using

21BAS10050: Then all of this was achieved using the process of layering

in hybrid agent

in hybrid agent are not

in hybrid agent are not possible without

in hybrid agent are not possible without the

21BAS10050: in hybrid agent are not possible without the layering

procedure which we will learn more about

procedure which we will learn more about in the

procedure which we will learn more about in the for further

slides now

slides now | would like to call upon

slides now | would like to call upon unchallenged to

slides now | would like to call upon unchallenged to explain

21BAS10050: layered architecture.

21BAS10050: layered architecture.

21BAS10050: layered architecture.

21BAS10050: layered architecture.

21BAS10051: Thank you shivers hello Sir

I'm going to

I'm going to explain the

I'm going to explain the part of layering a

21BAS10051: I'm going to explain the part of layering architecture.

—=I DAS IUYOT. THT QOmlg IO CAVIAGITT UIE Pall OF IAYEHINIY arCHilteCture,

JADACANHACA. CR, hart ie

21BAS10051: So what is layering architecture

21BAS10051: So what is layering architecture layering is a powerful way

21BAS10051: So what is layering architecture layering is a powerful way of

structuring the complexities

structuring the complexities in general and

structuring the complexities in general and functionalities in

particular

particular layering approaches

particular layering approaches supports

21BAS10051: particular layering approaches supports several properties

such as reactivity

such as reactivity deliberation

such as reactivity deliberation cooperation and adaptation

21BAS10051: adaptation.

21BAS10051: This kind of structuring leads

21BAS10051: This kind of structuring leads naturally to

21BAS10051: This kind of structuring leads naturally to the idea of

21BAS10051: This kind of structuring leads naturally to the idea of layered

architecture of which

architecture of which touring machine and

architecture of which touring machine and inter wrap are

21BAS10051: their example.

21BAS10051: The main idea

21BAS10051: The main idea is to

21BAS10051: The main idea is to structure the functionalities

21BAS10051: The main idea is to structure the functionalities into

more heroically

more heroically organized layers

more heroically organized layers that interact

21BAS10051: more heroically organized layers that interact with each

other to achieve

other to achieve coherent behavior

21BAS10051: other to achieve coherent behavior.

21BAS10051: Now we going to see

21BAS10051: Now we going to see about the layering techniques

21BAS10051: Now we going to see about the layering techniques.

21BAS10051: Now we going to see about the layering techniques.

21BAS10051: Soa key problem

21BAS10051: Soa key problem in search

21BAS10051: Soa key problem in such architectures is what

21BAS10051: Soa key problem in such architectures is what kind of

control framework is embedded

control framework is embedded the agents of

control framework is embedded the agent subsystem in

21BAS10051: control framework is embedded the agent subsystem in to

manage the interaction between the various

21BAS10051: manage the interaction between the various layer.

21BAS10051: The first one is the

21BAS10051: The first one is the horizontal layering.

21BAS10051: Each layer is directly

21BAS10051: Each layer is directly connected to the sensory input

21BAS10051: Each layer is directly connected to the sensory input and

action output the

action output the effect each layer

action output the effect each layer itself acts as

21BAS10051: action output the effect each layer itself acts as agent

producing suggestion to

producing suggestion to what action to perform

producing suggestion to what action to perform another

one is the vertical

21BAS10051: one is the vertical layering.

21BAS10051: Sensory input and action

21BAS10051: Sensory input and action output are each

21BAS10051: Sensory input and action output are each delayed with the

21BAS10051: more.

21BAS10051: more.

21BAS10051: One layer each.

21BAS10051: Now we are going to see the

21BAS10051: Now we are going to see the types of layer.

21BAS10051: Now we are going to see the types of layer.

21BAS10051: Now we are going to see the types of layer.

21BAS10051: Now we are going to see the types of layer.

21BAS10051: Now we are going to see the types of layer.

21BAS10051: Or does the

21BAS10051: Or does the definition layers

21BAS10051: Or does the definition layers defines the problem that

21BAS10051: Or does the definition layers defines the problem that

should be solved by the system

should be solved by the system problem solver

should be solved by the system problem solver layer defines

the method for

21BAS10051: the method for reasoning.

21BAS10051: You mean more

21BAS10051: Domain model layer describes the

21BAS10051: Domain model layer describes the domain knowledge

en ee en eee ee ee ee eee WE Ne

ITRACANONG1: TIS evyctam

21BAS10051: US system.

21BAS10051: These three components are described

21BAS10051: These three components are described independently

21BAS10051: These three components are described independently to

enable the reusability

21BAS10051: enable the reusability adapter layer.

21BAS10051: It

21BAS10051: It addresses the

21BAS10051: It addresses the three layer components

21BAS10051: It addresses the three layer components to each other

specify the problem

21BAS10051: specify the problem.

21BAS10051: specify the problem.

21BAS10051: Thank you for your time

21BAS10051: Thank you for your time here we completed our

Perl IVS Pm TNIV ev

we wt eet PrieeenMw vw

nracantatinn

21BAS10051: presentation.

21BAS10051: presentation.

21BAS10051: presentation.

21BAS10051: presentation.

21BAS10051: presentation.

21BAS10051: presentation.

21BAS10051: presentation.

ee 100359: Any question?

ee 100359: Any question?

a

ee 100359: The next goal.

ee 100359: For rockfall coming

e 100359: For rockfall coming facts and credit predicate

e 100359: For rockfall coming facts and credit predicates.

e 100359: For rockfall coming facts and credit predicates.

ee 100359: Can | finish Internet

e 100359: Can | finish Internet?

21BAS10069: Uh circa.

21BAS10069: Uh so can we present on Friday so

21BAS10069: Uh, so can we present on Friday so.

21BAS10069: Uh, so can we present on Friday so.

-

ee 100359: Uh we can do that

e 100359: Uh we can do that but | don't

e 100359: Uh we can do that but | don't think there is a class on

€* 100359: Friday.

© 100359: Friday.

21BAS10069: Uh

21BAS10069: | Sir

21BAS10069: | Sir | think there is

21BAS10069: | Sir | think there is is there no class on Friday

21BAS10069: |, Sir, | think there is. Is there no class on Friday so?

21BAS10069: |, Sir, | think there is. Is there no class on Friday so?

ee 100359: Then the event doesn't

ee 100359: Then the event isn't here so |

e 100359: Then the event isn't here so | think all classes will

we, 100359: Then the event isn't here so | think all classes will be shipped

© 100359: on the 30th.

21BAS10069: So actually there's

21BAS10069: So actually there's on we have to add

21BAS10069: So actually there's on we have to add some slides and

21BAS10069: So actually there's on we have to add some slides and do

some editing as well so it's

some editing as well so it's not fully ready

some editing as well so it's not fully ready yet so the PPT

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: So actually

21BAS10069: Thank you, Sir. Thank you so much.

ee 100359: So we'll continue the

e 100359: So we'll continue the presentation and

e 100359: So we'll continue the presentation and.

© 100359: As we have finished

e 100359: As we have finished all the modules so

e 100359: As we have finished all the modules so on Monday

e 100359: As we have finished all the modules so on Monday it's 25th

Wo PUYUSIF. FNS WE THAVEe TEMSTIeG all He MIOUUIES SO UIT IWIONUdYy Its COUT

walk

uh | planned a quiz

uh | planned a quiz for module 4 and

uh | planned a quiz for module four and five

uh | planned a quiz for module 4 and 510 questions for 10

minute

© 100359: minute.

€* 100359: And

e 100359: And you will get an assignment

e 100359: And you will get an assignment tomorrow evening

e 100359: And you will get an assignment tomorrow evening.

ee 100359: That's for you

e 100359: That will be very easy

e 100359: That will be very easy for you that you know that

e 100359: That will be very easy for you that you that you can do

e 100359: That will be very easy for you that you that you can.

e 100359: That will be very easy for you that you that you can.

wo 100359: That will be very easy for you that you that you can.

lan

ee 100359: Find so say in the next class

21BSA10006: Yes Sir

21BSA10006: Yes, Sir.

21BSA10006: OK Sir

21BSA10006: OK Sir

21BSA10006: OK Sir

21BSA10006: OK Sir

21BSA10006: You're so they call them and we have holiday on

and day after tomorrow

21BSA10006: and day after tomorrow.

21BEC10049: You're so they call them

21BEC10049: You're so they call them

21BEC10049: You're so they call them

21BEC10049: You're so they call them

21BEC10049: You're so they call them

21BEC10049: You're so they call them

21BSA10006: Without due to events we have holiday.

ee 100359: | think glasses are so already

e 100359: | think glasses are so already sifted on the

e 100359: | think glasses are so already sifted on the 30th Fridays

e 100359: | think glasses are so already sifted on the 30th Fridays class.

e 100359: | think glasses are so already sifted on the 30th Fridays class.

© 100359: For this 2nd 22nd

ee 100359: For this 2nd 22nd club uh

ee 100359: For this 2nd 22nd club uh

e 100359: For this 2nd 22nd April that is listed on

e 100359: For this 2nd 22nd April that is listed on the 30th April

e 100359: For this 2nd, 22nd April that is listed on the 30th April.

e 100359: For this 2nd, 22nd April that is listed on the 30th April.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BSA10006: OK, Sir. OK. Thank you.

21BEC10042: Thank you, Sir.

21BEC10042: Thank you, Sir.

21BEC10042: Thank you, Sir.

21BEC10042: Thank you, Sir.

21BAI10020: Thank you, Sir.

21BAI10403: Yeah.

21BSA10006: Thank you for maybe leave.

21BSA10006: Thank you for maybe leave.

100359: Yeah, I'll look.

Wey 1UUs57. Yeah, Ill lOOK.

~ARrAARRAS -) 1

21BSA10006: Thank you.

21BSA10006: Thank you.

21BSA10006: Thank you.

21BSA10006: Thank you.

21BSA10006: Thank you.