Πανεπιστήμιο Κύπρου
Τμήμα Πληροφορικής

EPL425- INTERNET TECHNOLOGIES

GROUP PROJECT-INTERACT

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D.1.2: Project Brief

Goal:

Create a web-based application that will be used by students and professors. This application will give the ability to teachers to interact easier and efficiently with students during the lecture and vice versa.

Approach:

We will design a website according to the mock-up, following below. First of all, every teacher using his/her username and password will connect to the website, to upload/edit/delete questions with possible answers for every course that he/she teaches. Also, every question must have a limited time to be answered, that it will be assigned by the teacher.

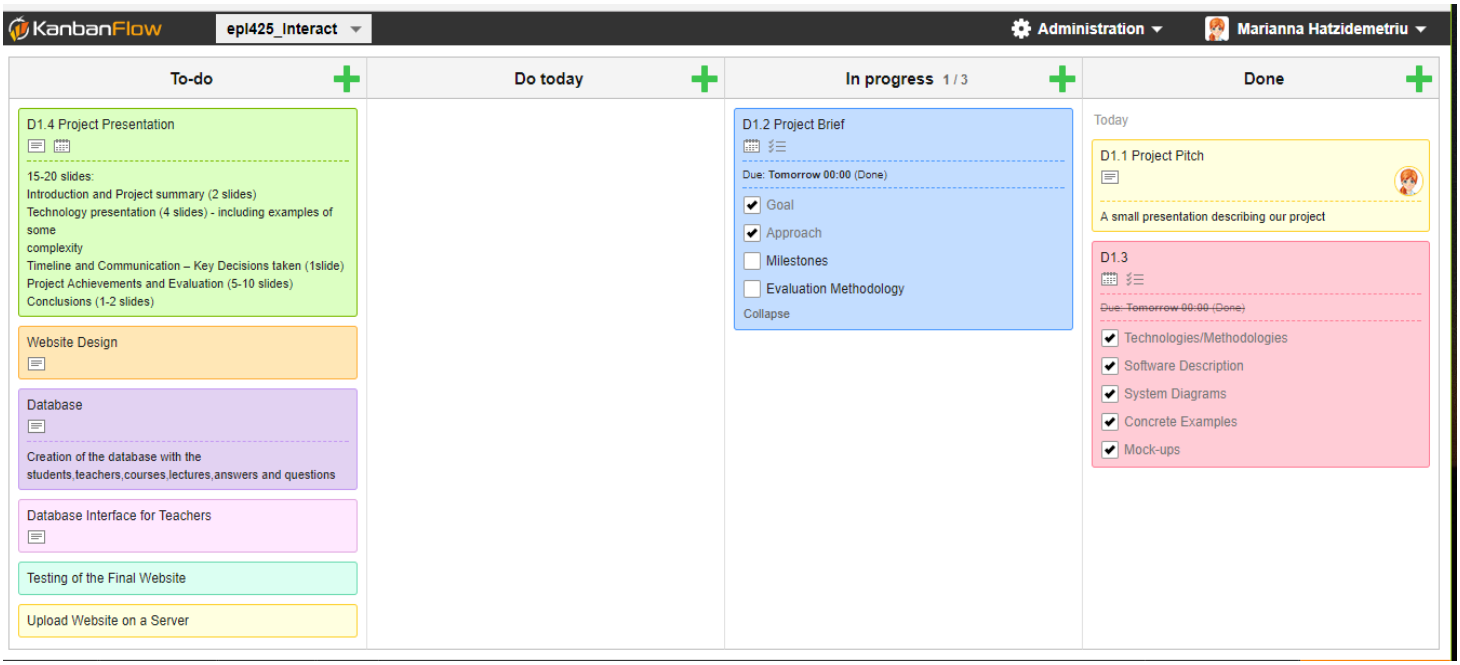
During the lecture, students will log in using the course code and select the lecture of the day so they will have the opportunity to answer the questions. After the time for each question passes, students will not be able to answer anymore, and real time statistics will appear on the screen. The teacher will decide if he/she wants to save the statistics or not.

Milestones

We make a simple project planning with the use of KanbanFlow. The link of our project time plan is:

https://kanbanflow.com/board/40bc9a63572a8895d6aa2c5dc1045181

and this is the our current plan:



Technology Evaluation

At the end of implementing our project, we need to have some features in mind in order to evaluate our website. This features are the following:

1. Usability - easy to interact, navigate, use, remember the website
2. Cost of the system built
3. Time spent to implement the system
4. Reliability and support
5. Flexibility
6. User Interface - the design of the website
7. Sharing and Communication - communication between client-server
8. Security and Privacy - login to the system
9. Accuracy of website, does it meet the goals and objectives needed? Is it well written and organized?
10. Authority, can the authors be identified?
11. Accessibility

D.1.3: Technology Assessment

Technologies:

1. Apache HTTP Server Web server
2. MySQL (or REST API) Database
3. PHP (PHP Hypertext Preprocessor) dynamic programming language for websites
4. JavaScript scripting programming language
5. HTML (HyperText Markup Language) Markup Language for web development
6. CSS (Cascading Style Sheets) Language for web design
7. Bootstrap framework open source tools (HTML, CSS JavaScript)

Database tables:

Teacher

ID	Username	Password	Name

Student

ID	Name	Department

Course (Foreign key: Teacher's username)

Key	Code	Title	Teacher's ID

Lecture (Foreign key: Course's key)

Code	Title	Course's key

Question (Foreign key: Lecture's code + Teacher's username)

Code	Question	AnswerNo	Lecture's code	Type	Time	Statistics	Teacher's ID

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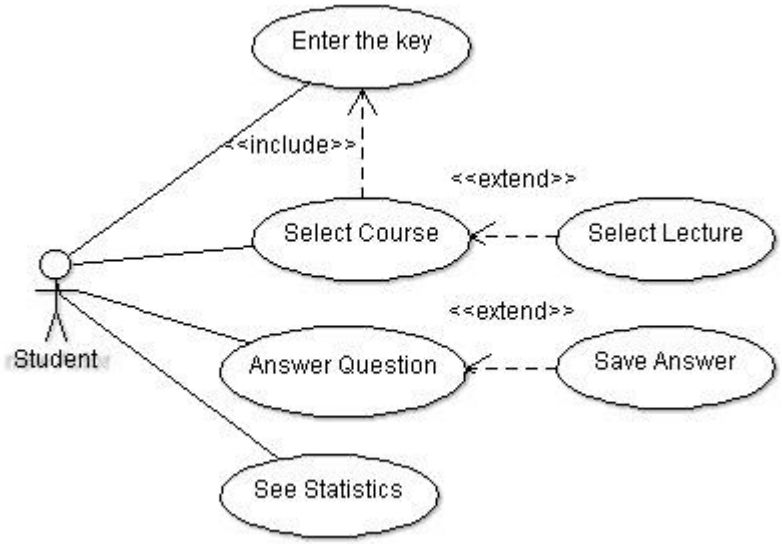
Possible Answer

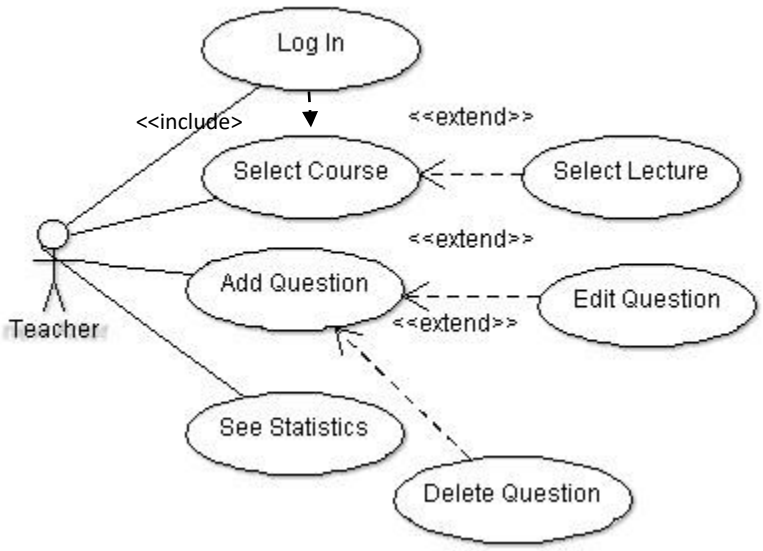
TeacherID	QuestionNo	AnswerNo	Description	Correct (T/F)

Enroll

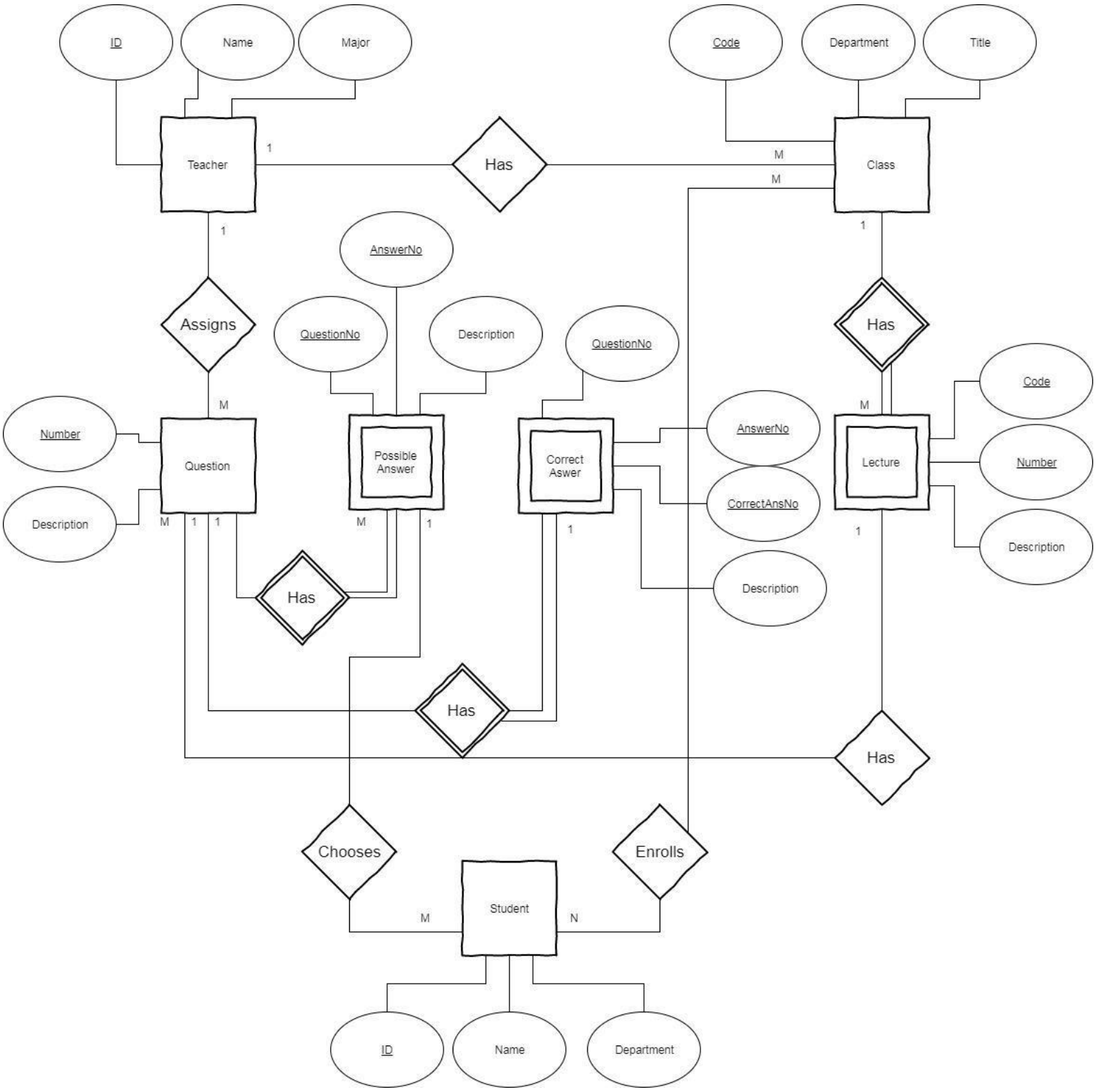
KeyCourse	StudentID

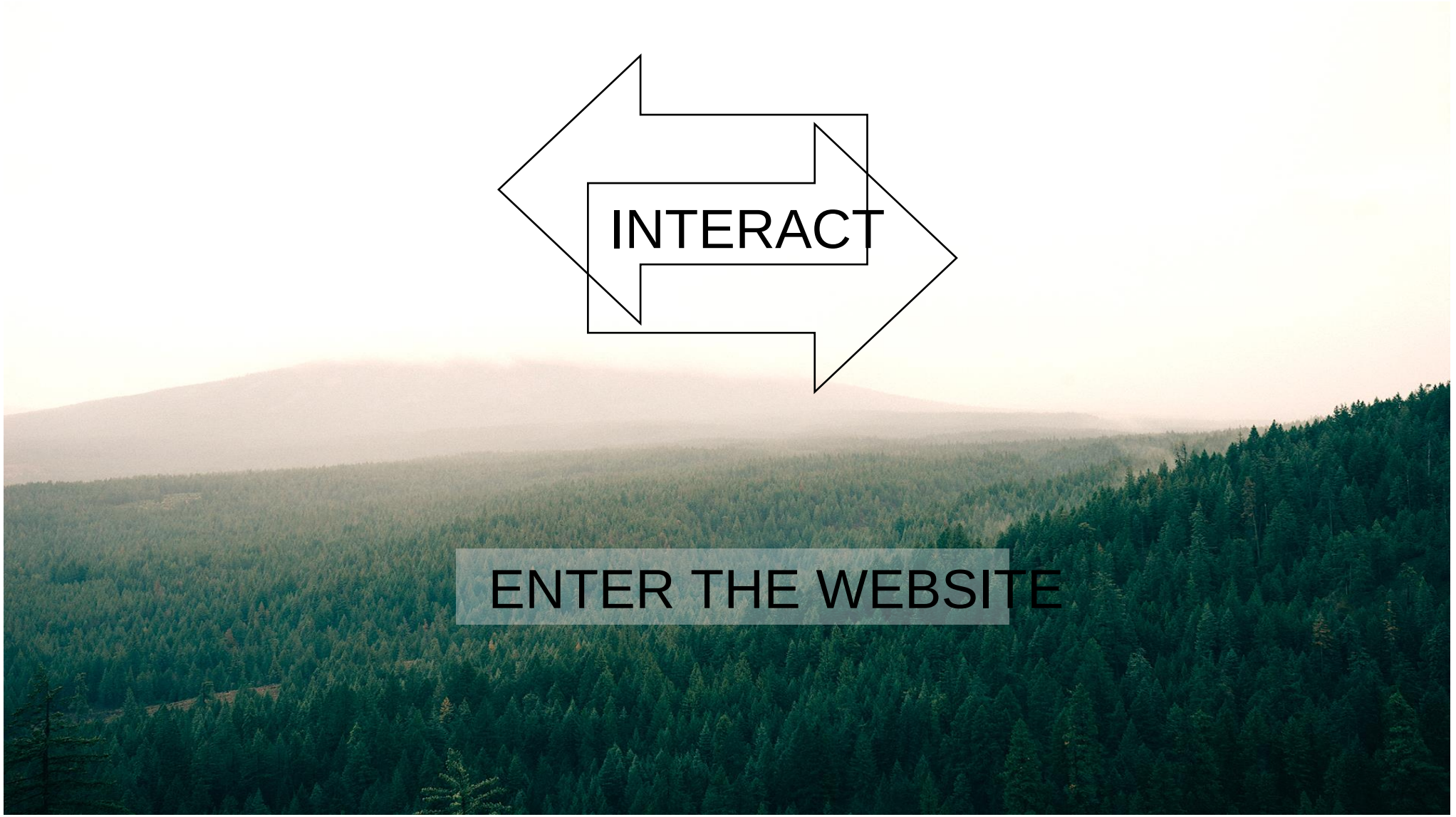
Use Cases:

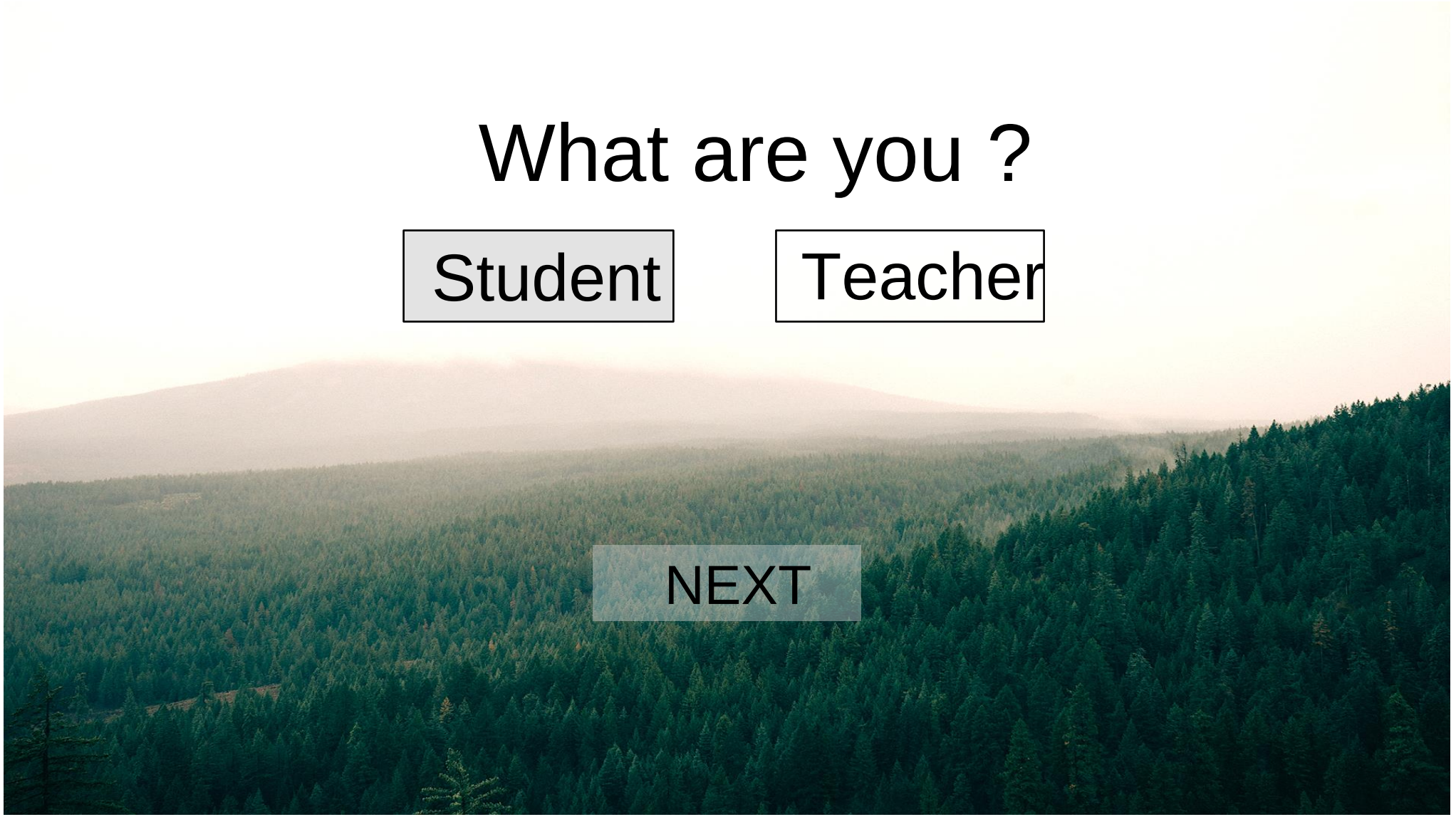


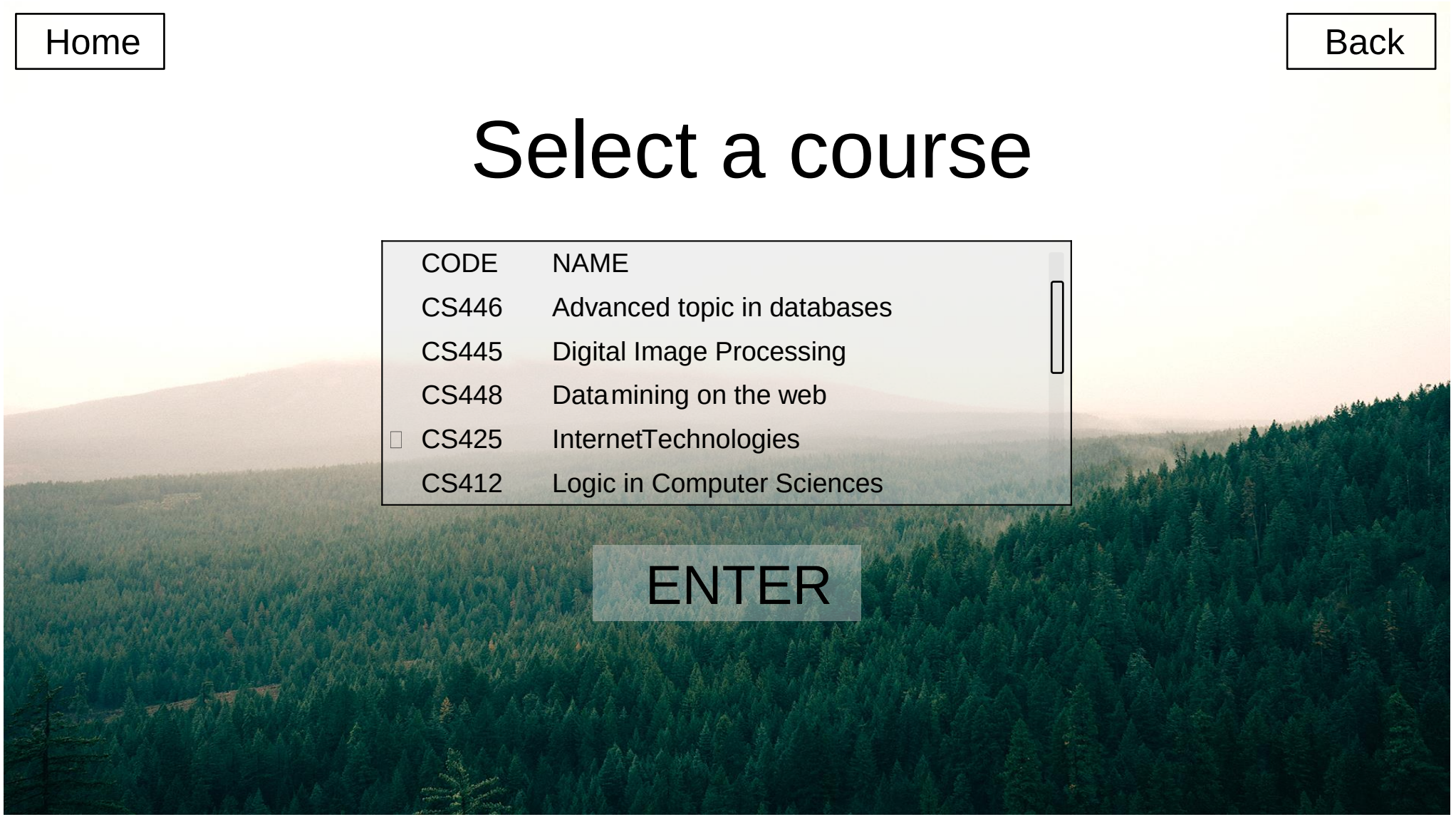

Log In
<<include>
<<extend>>
Select Course
Select Lecture
<<extend>>
Add Question
Edit Question
<<extend>>
Teacher
See Statistics
Delete Question

ER-Diagram:


ID
Name
Major
Code
Department
Title
Teacher
1
Has
M
Class
M
1
1
AnswerNo
Assigns
QuestionNo
Description
QuestionNo
Has
Code
M
M
Number
Question
Possible Answer
Correct Aswer
AnswerNo
Lecture
Number
Description
M
1
1
M
1
1
CorrectAnsNo
Description
Has
Has
Has
Chooses
Enrolls
M
Student
N
ID
Name
Department


INTERACT
ENTER THE WEBSITE

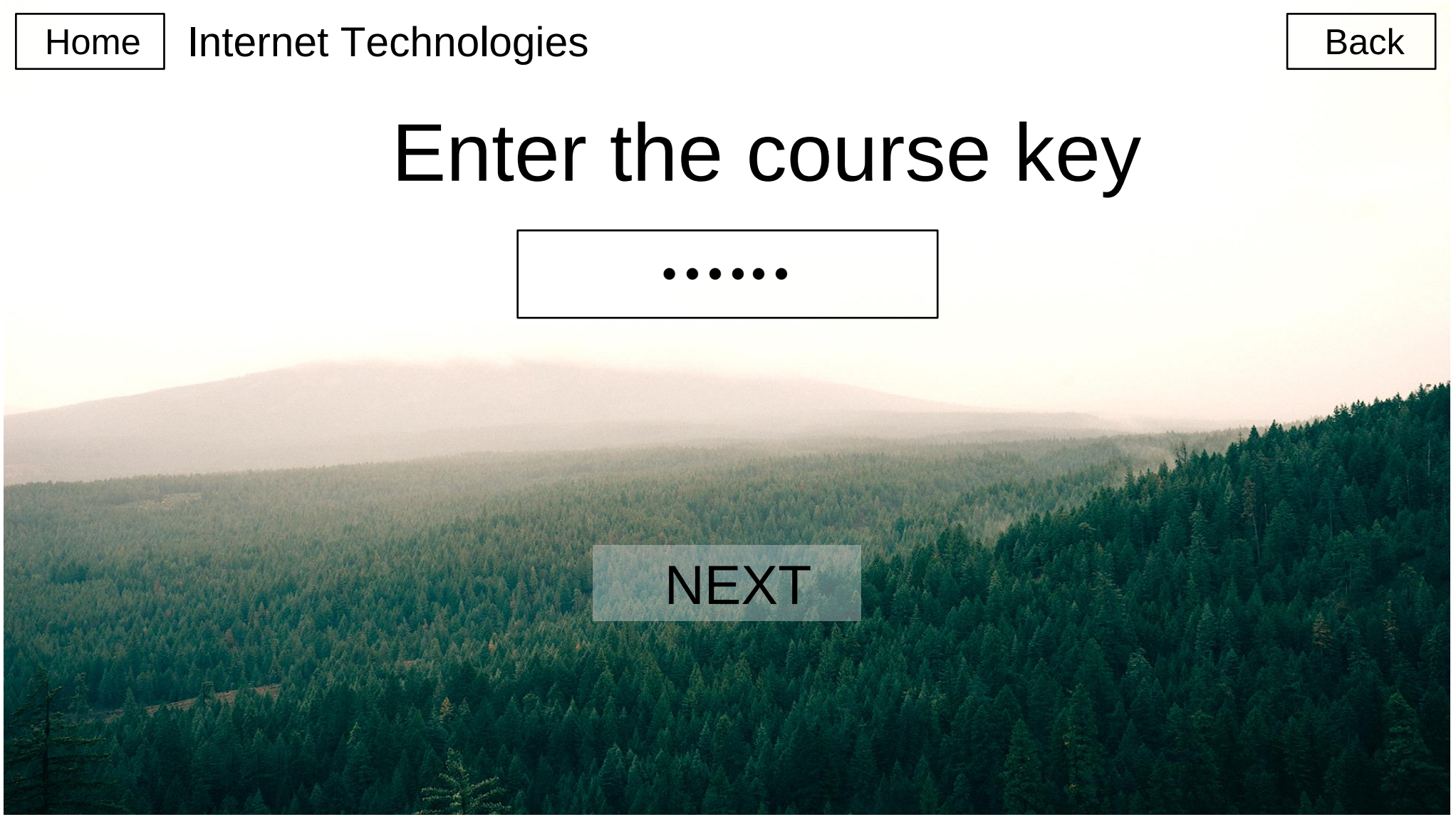

What are you ?
Student
Teacher
NEXT


Home
Back
Select a course
CODE NAME
CS446 Advanced topic in databases
CS445 Digital Image Processing
CS448 Data mining on the web
CS425 InternetTechnologies
CS412 Logic in Computer Sciences
ENTER

Home Internet Technologies Back

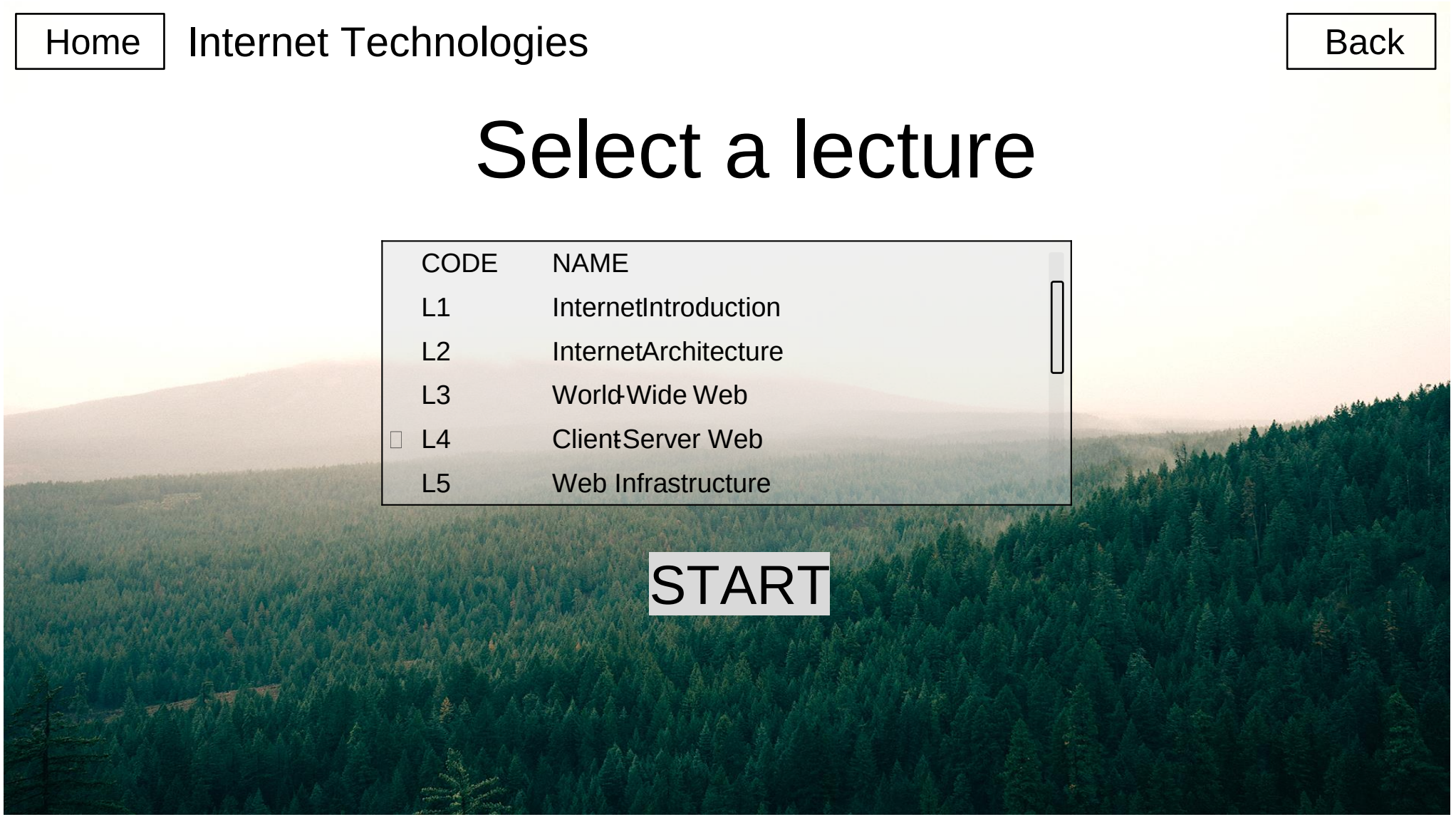
Enter the course key

••••••



Home Internet Technologies Back

Select a lecture

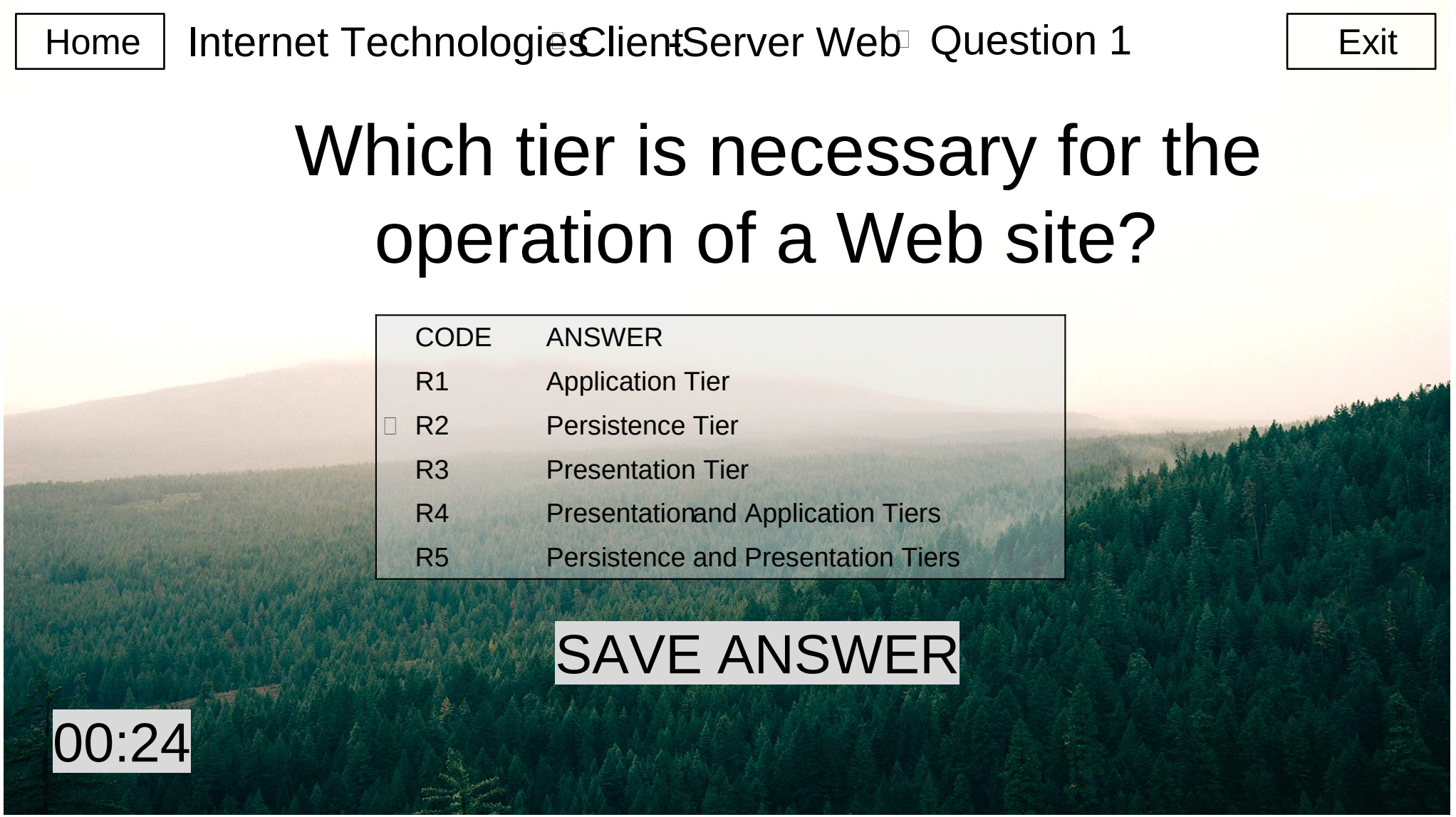


CODE	NAME
L1	InternetIntroduction
L2	InternetArchitecture
L3	World-Wide Web
L4	Client-Server Web
L5	Web Infrastructure

START

Home Internet Technologies Client-Server Web Exit

Wait for next question


Home
Internet Technologies
Client-Server Web
Question 1
Exit
Which tier is necessary for the operation of a Web site?
CODE ANSWER
R1 Application Tier
R2 Persistence Tier
R3 Presentation Tier
R4 Presentation and Application Tiers
R5 Persistence and Presentation Tiers
SAVE ANSWER
00:24

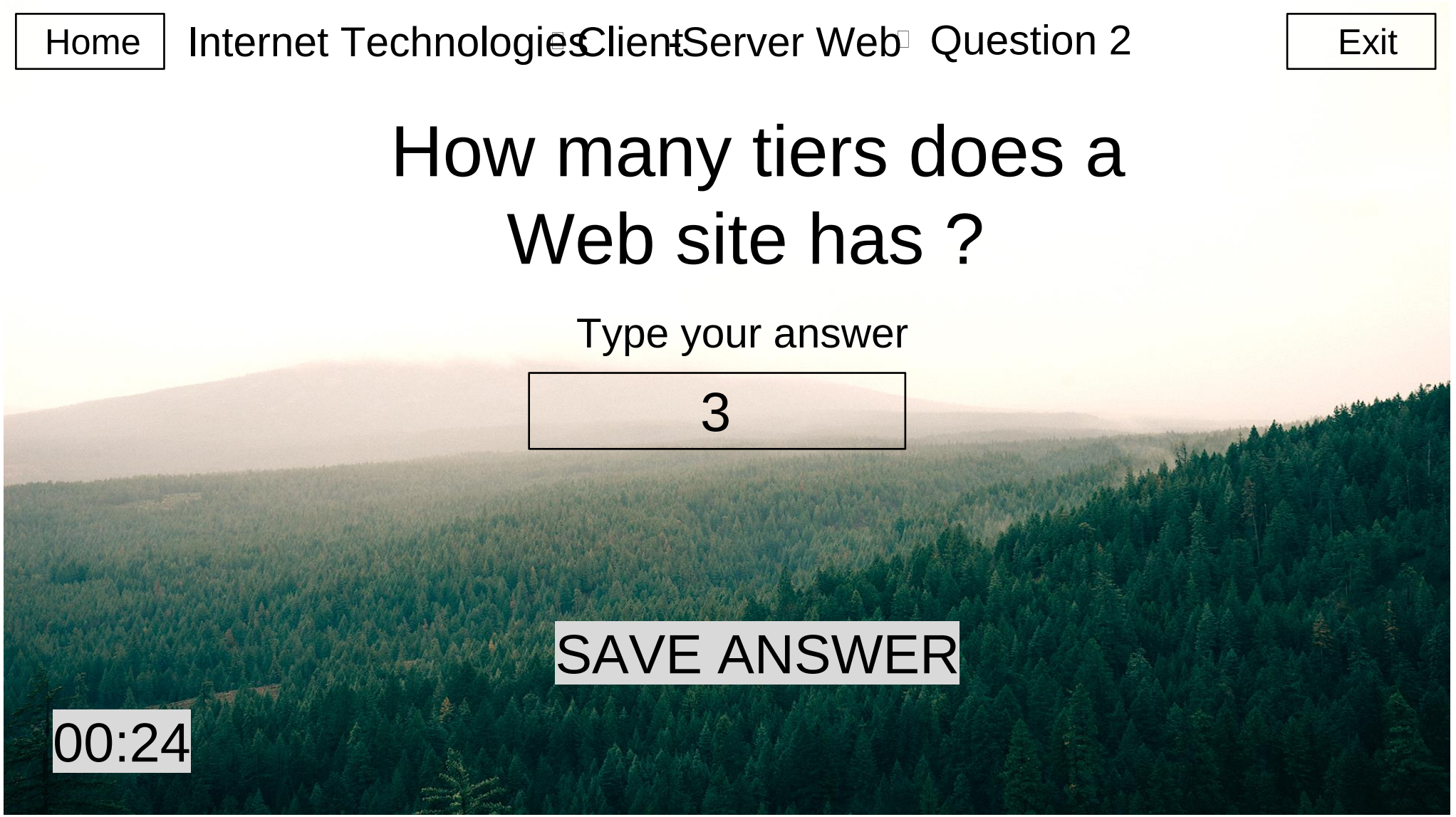
Which tier is necessary for the operation of a Web site?

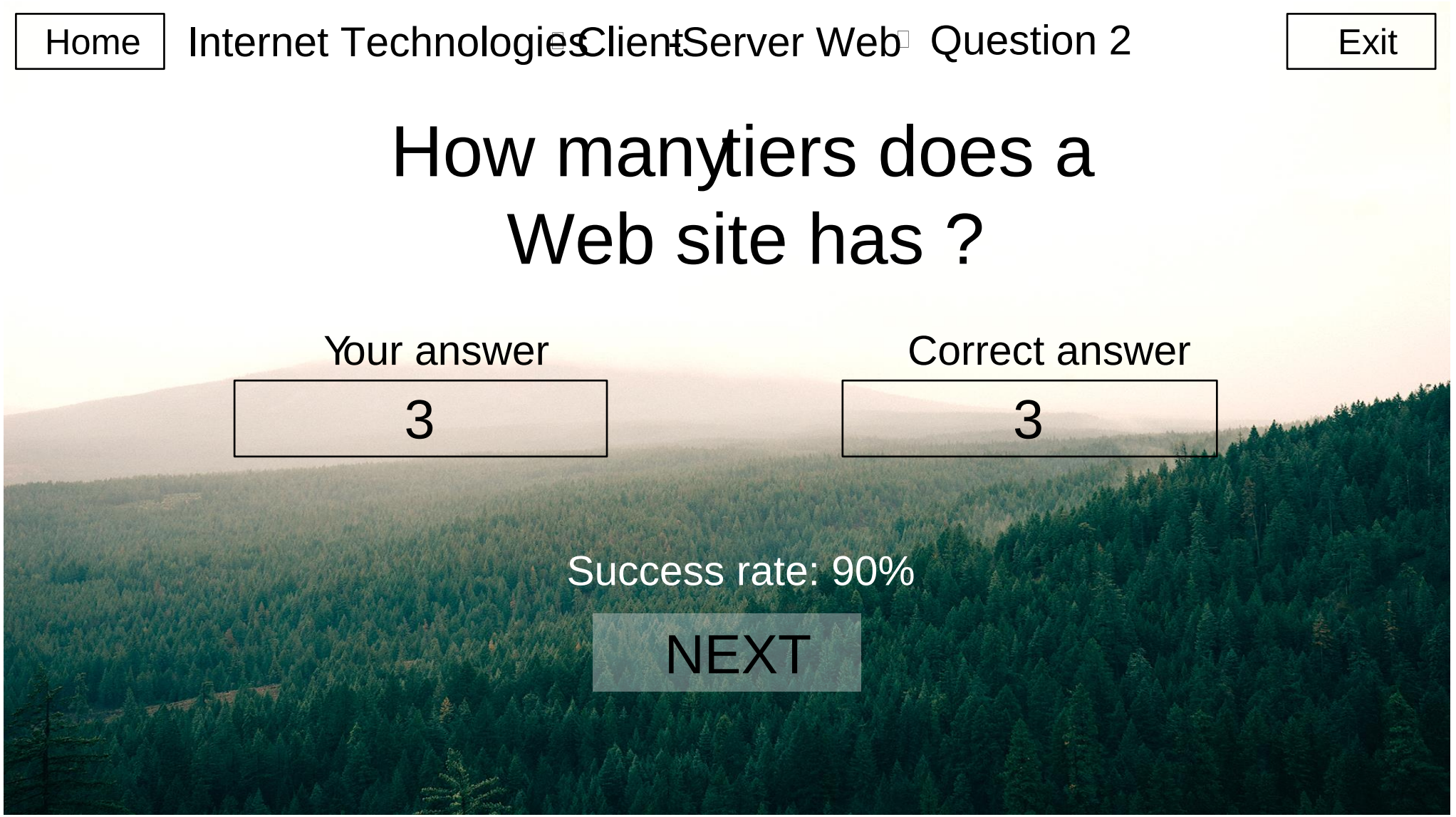
	CODE	ANSWER	STATISTICS
	R1	Application Tier	25%
☐	R2	Persistence Tier	5%
☐	R3	Presentation Tier	65%
	R4	Presentation and Application Tiers	5%
	R5	Persistence and Presentation Tiers	0%

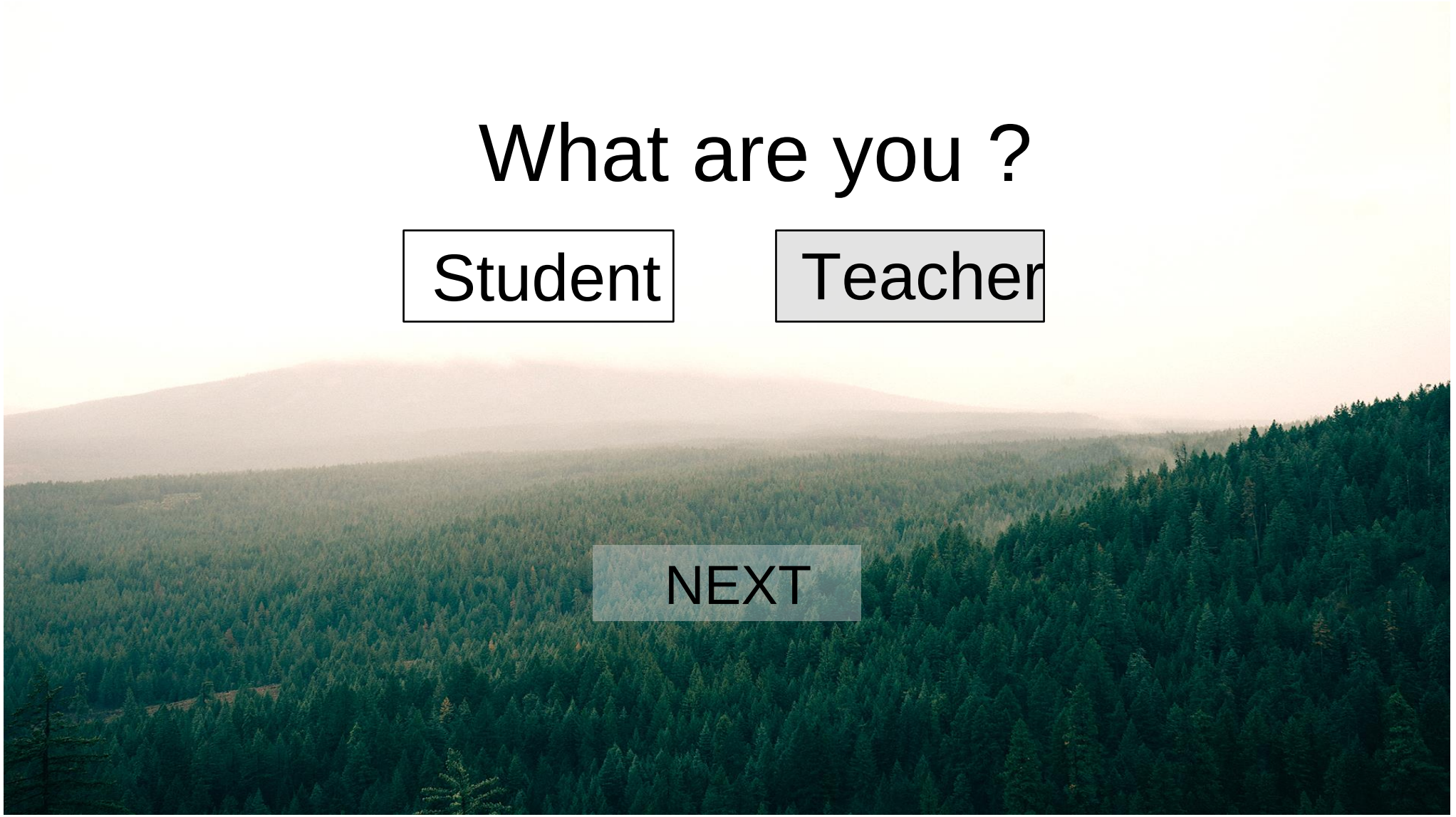
NEXT

Home Internet Technologies Client-Server Web Exit

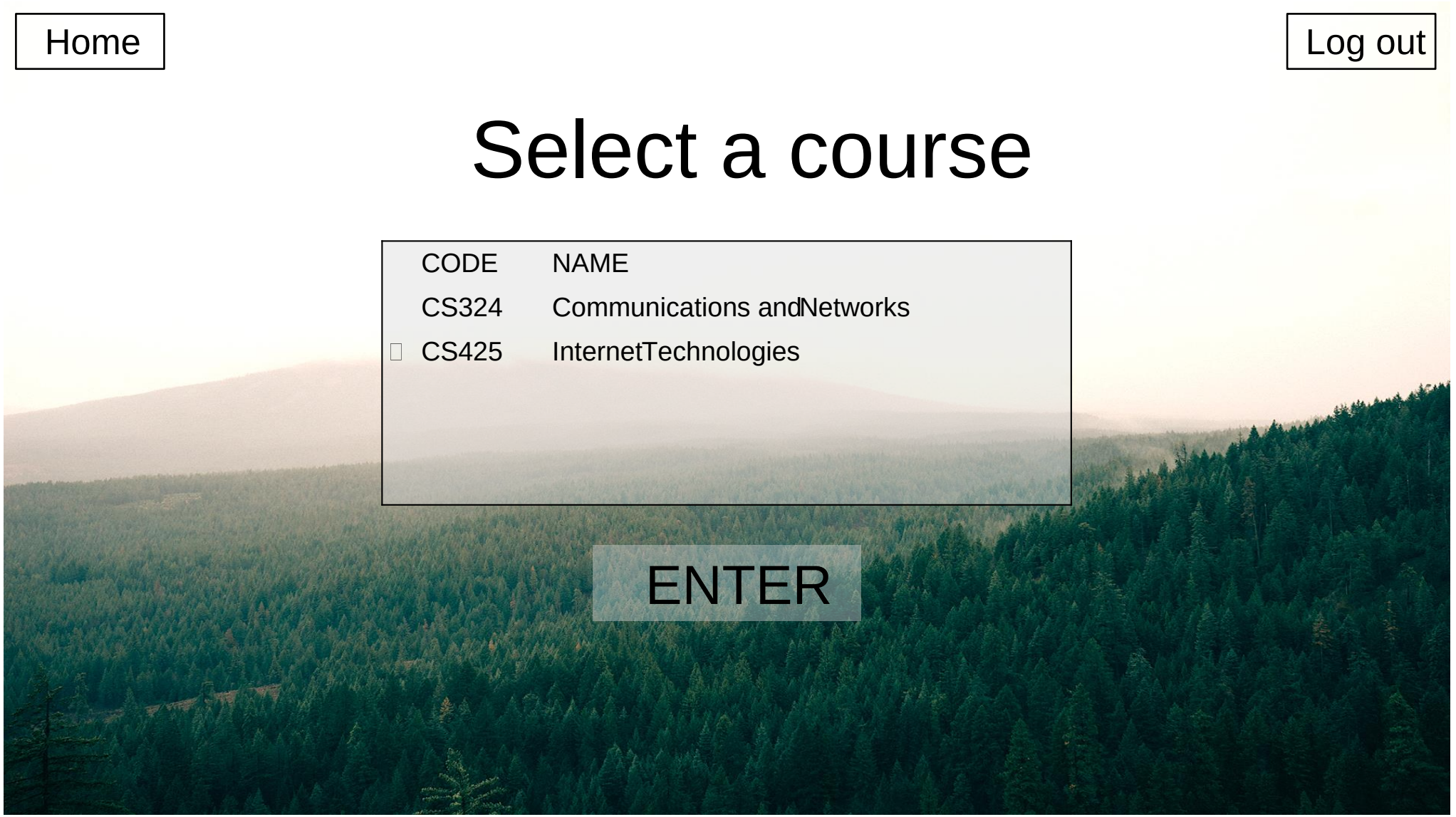
Wait for next question

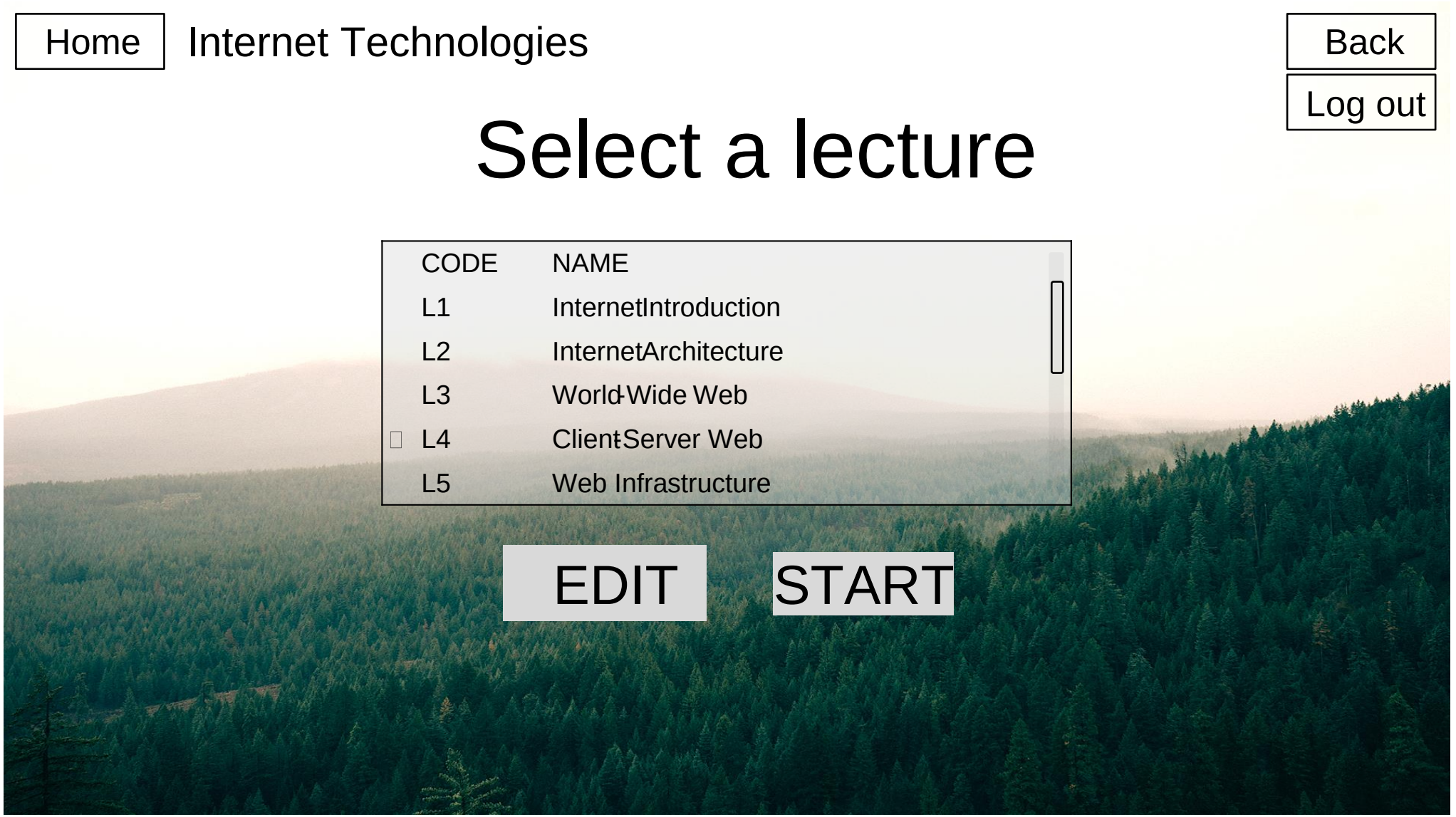

Home
Internet Technologies
Client-Server Web
Question 2
Exit
How many tiers does a Web site has ?
Type your answer
3
SAVE ANSWER
00:24


Home
Internet Technologies - Client-Server Web - Question 2
Exit
How many tiers does a Web site has ?
Your answer
3
Correct answer
3
Success rate: 90%
NEXT

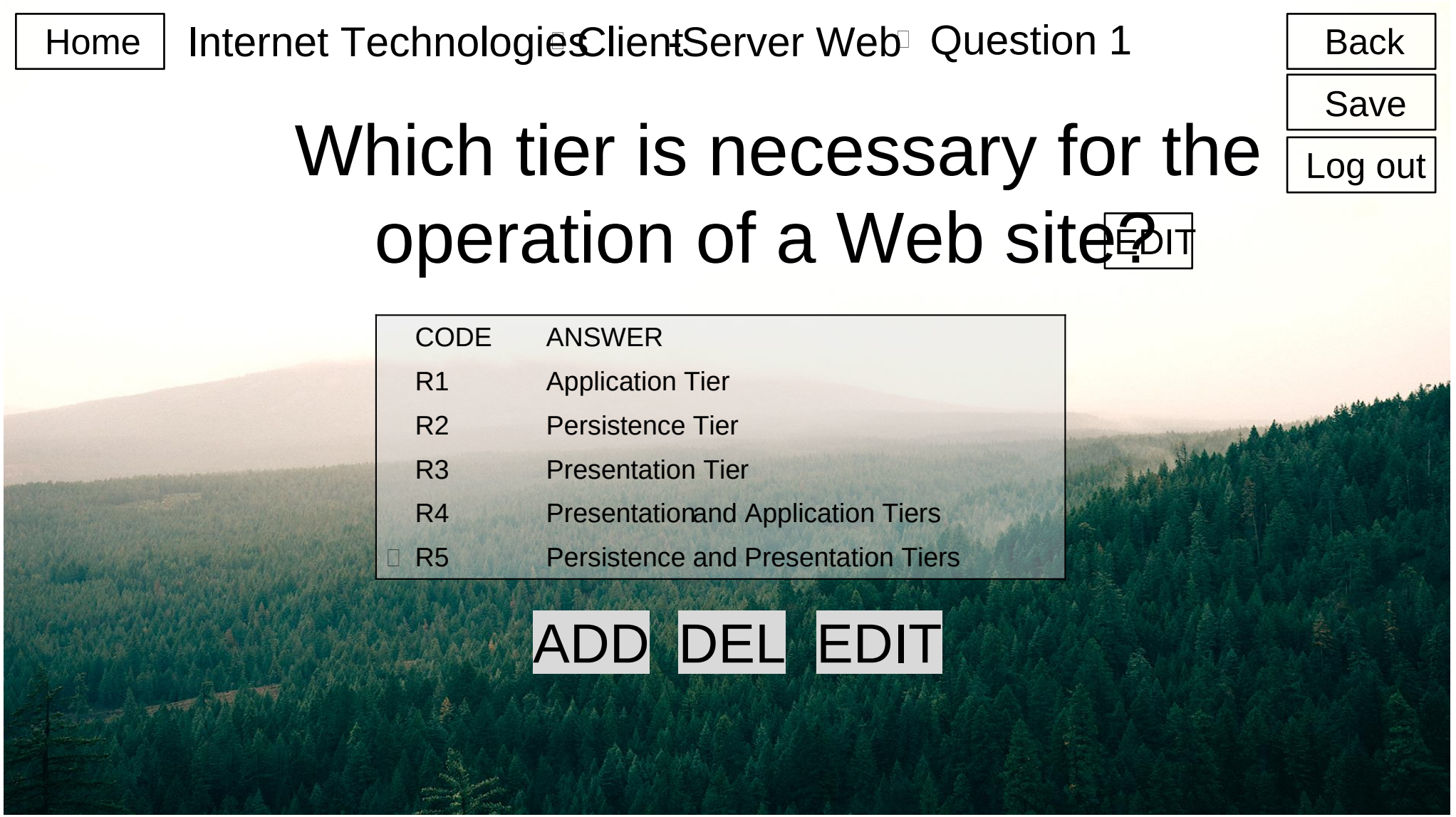

What are you ?
Student
Teacher
NEXT


Identify yourself
id
dikaiakos
key
••••••
NEXT


Home
Log out
Select a course
CODE NAME
CS324 Communications and Networks
CS425 Internet Technologies
ENTER


Home
Internet Technologies
Back
Log out
Select a lecture
CODE
NAME
L1
InternetIntroduction
L2
InternetArchitecture
L3
World-Wide Web
L4
Client-Server Web
L5
Web Infrastructure
EDIT
START


Home
Internet Technologies - Client-Server Web
Back
Log out
Editthe set of questions
CODE
QUESTION
Q1
Which tier is necessary for the operation of a Web site ?
Q2
How many tiers does a Web site has ?
ADD
DEL
EDIT


Home
Internet Technologies
Client-Server Web
Question 1
Back
Save
Log out
Which tier is necessary for the operation of a Web site?
EDIT
CODE
ANSWER
R1
Application Tier
R2
Persistence Tier
R3
Presentation Tier
R4
Presentation and Application Tiers
R5
Persistence and Presentation Tiers
ADD
DEL
EDIT

Home Internet Technologies - Client-Server Web

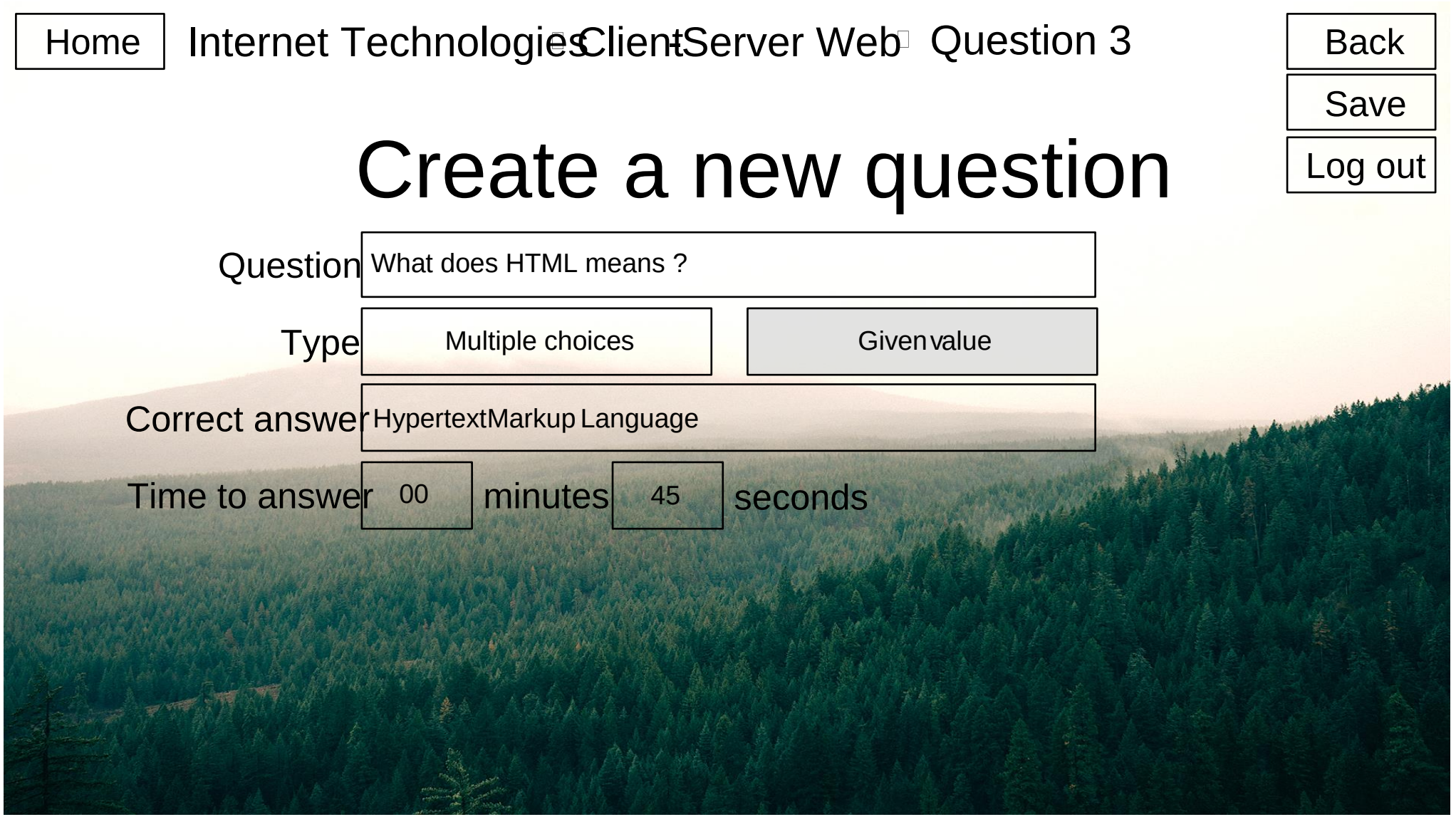
Back

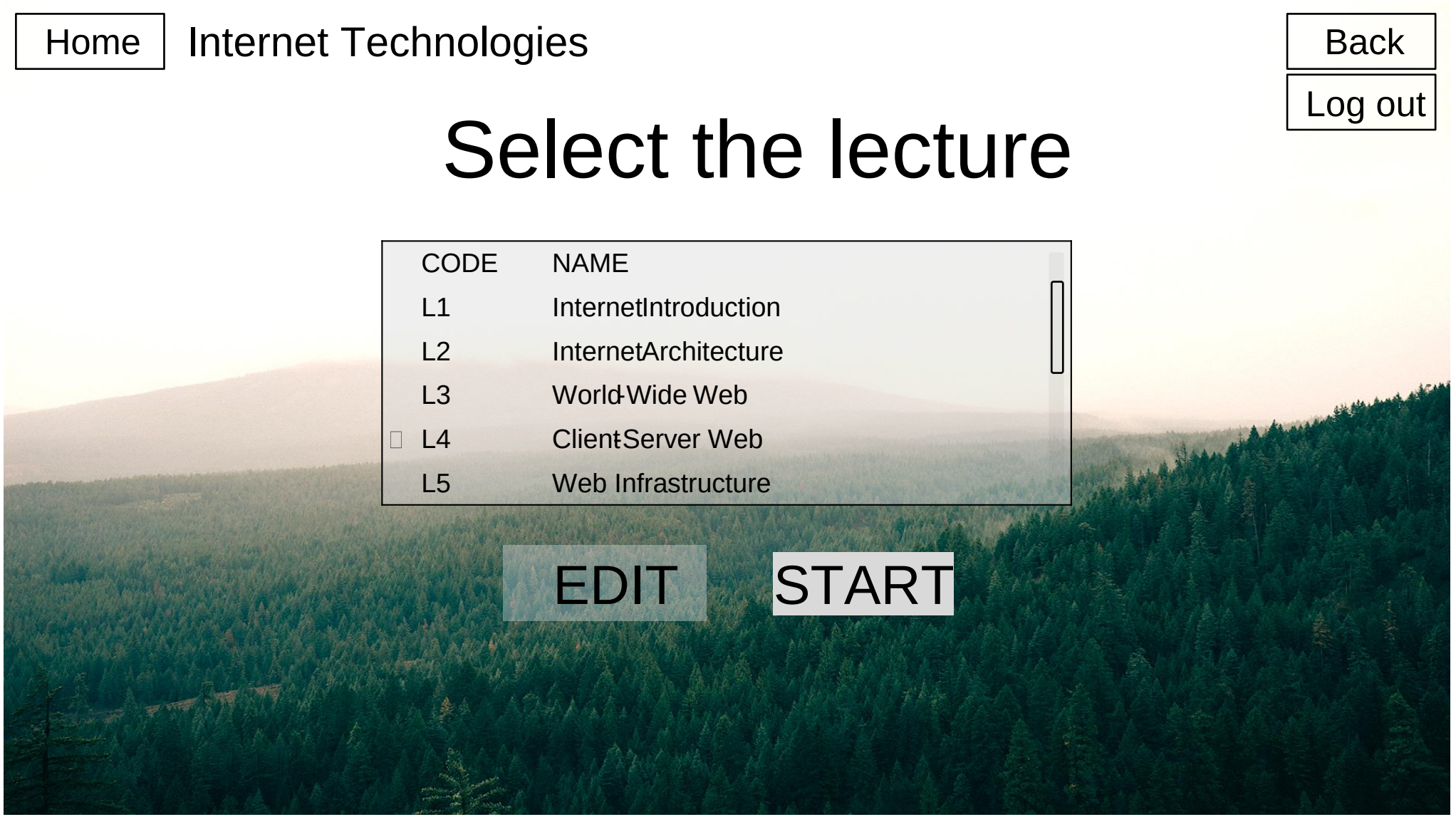
Log out

Editthe set of questions

CODE	QUESTION
Q1	Which tier is necessary for the operation of a Web site ?
Q2	How many tiers does a Web site has ?

ADD DEL EDIT


Home
Internet Technologies
Client
Server Web
Question 3
Back
Save
Log out
Create a new question
Question
What does HTML means ?
Type
Multiple choices
Given value
Correct answer
HypertextMarkup Language
Time to answer
00
minutes
45
seconds


Home
Internet Technologies
Back
Log out
Select the lecture
CODE
NAME
L1
InternetIntroduction
L2
InternetArchitecture
L3
World-Wide Web
L4
Client-Server Web
L5
Web Infrastructure
EDIT
START

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