

Introduction

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<http://jpaulgibson.synology.me/~jpaulgibson/TSP/Teaching/CSC4104/CSC4104-Introduction.pdf>



Email Advice

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SUBJECT -

- **include the module code CSC4104 - reply before next class**
- **IMPORTANT - reply that day (if possible)**
- **URGENT - reply ASAP**

Moodle Site

<https://moodle.imtbs-tsp.eu/course/view.php?id=499>

The screenshot shows a Moodle course page. At the top, there is a navigation bar with the course title 'Systèmes d'information et transformation numérique' and several menu items: 'Cours', 'Paramètres', 'Participants', 'Notes', 'Rapports', and 'Plus'. Below the navigation bar, there is a list of course sections, each with a right-pointing chevron icon. The sections are: 'Généralités', 'Session 1 - 7th February (10h-13h15) J01', 'Session 2', 'Session 3', 'Session 4', 'Session 6', 'Session 7', 'Session 8', 'Session 9', 'Session 10', 'Exam - CF1', and 'Bibliographie'. On the left side, there is a sidebar menu with a close button (x) at the top. The sidebar menu is currently expanded to show the 'Généralités' section, which is highlighted in blue. The 'Généralités' section contains several items: 'CSC4104-Syllabus', 'Annonces', 'Student List and email addr...', 'Trombinoscope 2024', and 'Web site for CSC4104'. Below the 'Généralités' section, there are several other sections, each with a downward-pointing chevron icon: 'Session 1 - 7th February (...)', 'Session 2', 'Session 3', 'Session 4', 'Session 6', 'Session 7', 'Session 8', 'Session 9', 'Session 10', 'Exam - CF1', and 'Bibliographie'.

<http://jpaulgibson.synology.me/~jpaulgibson/TSP/Teaching/CSC4104/>



Teaching-CSC4104 for Dr J. Paul Gibson, INFormatique (INF), Telecom SudParis, France.

Overview

This site contains material for the module  **Systèmes d'information et transformation numérique (CSC4104)**

Evaluation

Your evaluation will be based on 3 aspects of your work:

- Cahier de charges/Scope Statement(30%)
- BDD Models (30%)
- Final Exam/CF (40%)

Web Site

Typical Session (today)

Session 1: 7th February (10h-13h15) J01

1.1 Introduction

 Introduction




1.2 Types and Components of Information Systems

 Information System Types and Components

1.3 Modelling (data and processes in Information Systems)

 Modelling data and processes in IS - What is a good model? (some PBL)

Useful external links

-  [Système Informatique ou Système d'Information?](#), Yves Grandmontagne
-  [Is 'Computer Science' and 'Information Systems' the same subject?](#), Amir Azimi
-  [Cahier des charges et Spécifications: 2 concepts différents et complémentaires](#), Manoel Dialinas, Subatech Nantes.

Additional reading material

-  [What is an information system?](#), Boell, Sebastian K. and Dubravka Cecez-Kecmanovic. 48th Hawaii International Conference on System Sciences (2015).
-  [Informatique documentaire: le cahier des charges sous toutes les coutures](#), Alain Collignon, Joachim Schöpfel. Archimag.com - Guide pratique, 2007, Manager et développer son service infodoc, pp.34-42, 93.

Web Site

Programme (may change, depending on progress)

Session 2: 13th February (10h-13h15) J01 - Principle Roles, Innovation and Design Thinking

Session 3: 16th February (10h-13h15) J01 - Ethics, Inclusive Design and Accessibility

Session 4: 27th February (10h-13h15) J01 - CI Cahier de charges I - domain/context modelling, requirements

Session 5: 5th March (10h-13h15) J01 - CI Cahier de charges II - risks, planning, costs and management

Session 6: 12th March (10h-13h15) J01 - TP BDD with Sophie Chabridon - the "presence en cours" case study

Session 7: 19th March (14h30-17h45) J01 - TP BDD with Sophie Chabridon - the "presence en cours" case study

Session 8: 29th March (10h-13h15) J01 - TP BDD with Sophie Chabridon?? - the "presence en cours" case study

Session 9: 5th April (10h-13h15) A007-8 - TP BDD with Sophie Chabridon?? - the "presence en cours" case study

Session 10: 9th April (10h-13h15) A007-8 - TP BDD with Sophie Chabridon - the "presence en cours" case study

Final Exam: 2nd May (10h-13h15) J02 - CF

Learning outcomes

At the end of the course, the student will be able to:

- design an IS trajectory
- understand how we align company strategy, business strategy and IS strategy
- understand the interaction between the technical and societal aspects of an IS
- understand how to specify a client's needs using a mix of natural and formal languages

CDIO (Conceive – Design – Implement – Operate) skills

2.1 - Analytical reasoning and problem solving

3.1 - Teamwork

3.2 - Communication

4.3 - Systems engineering: design and management

4.7 - Carry out innovative engineering projects

Three Parts To The Module

1. Introduction to Concepts

2. Cahier de charges

3. Behaviour Driven Development with Gherkin and Cucumber

1. Introduction to Concepts (9h)

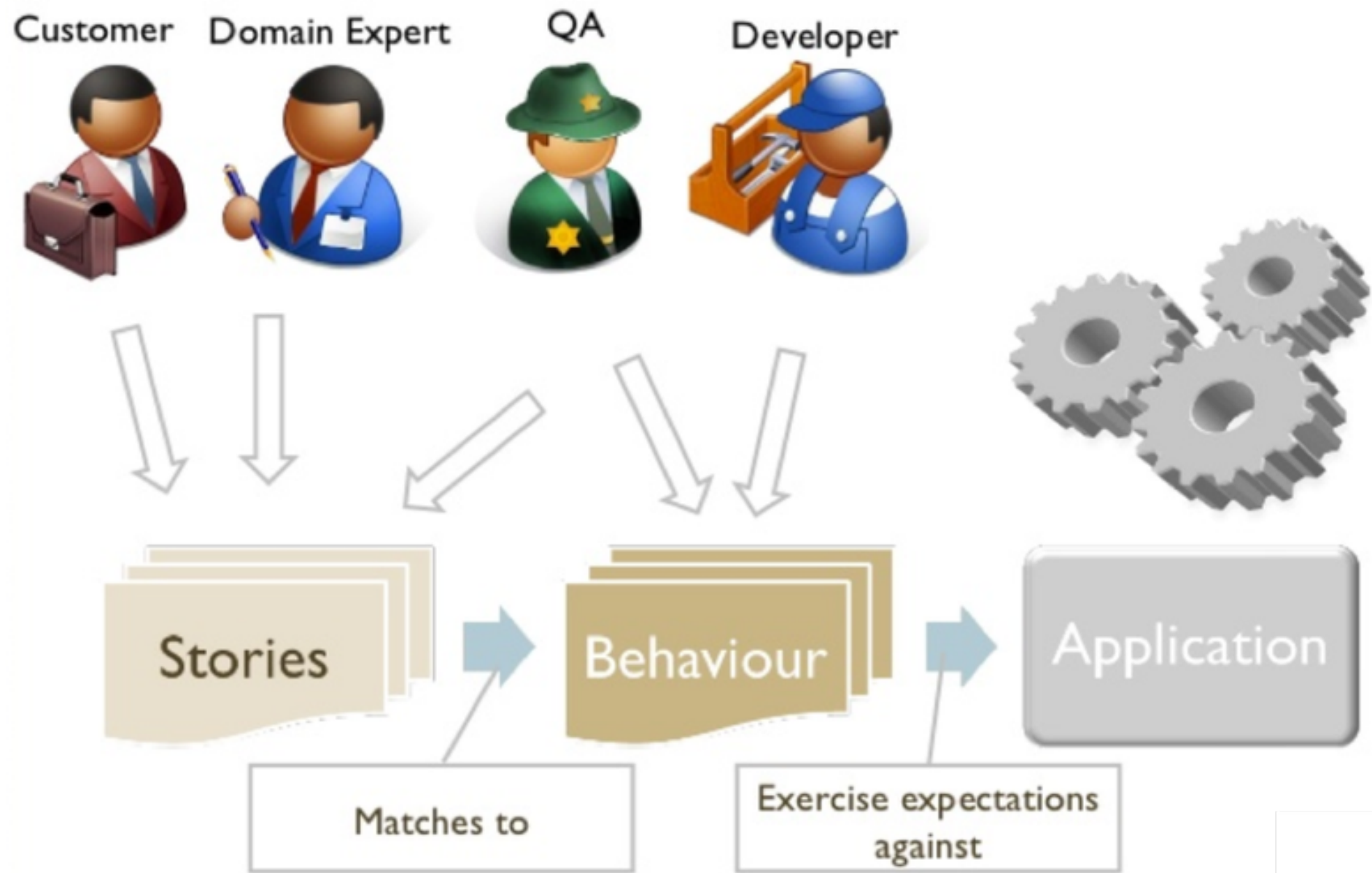
- Main types of information system
- Main components of information systems
- Main roles in information system development
- Strategic alignment
- Innovation
- Digital ethics
- Inclusive design and accessibility

2. Cahier de charges (9hrs)

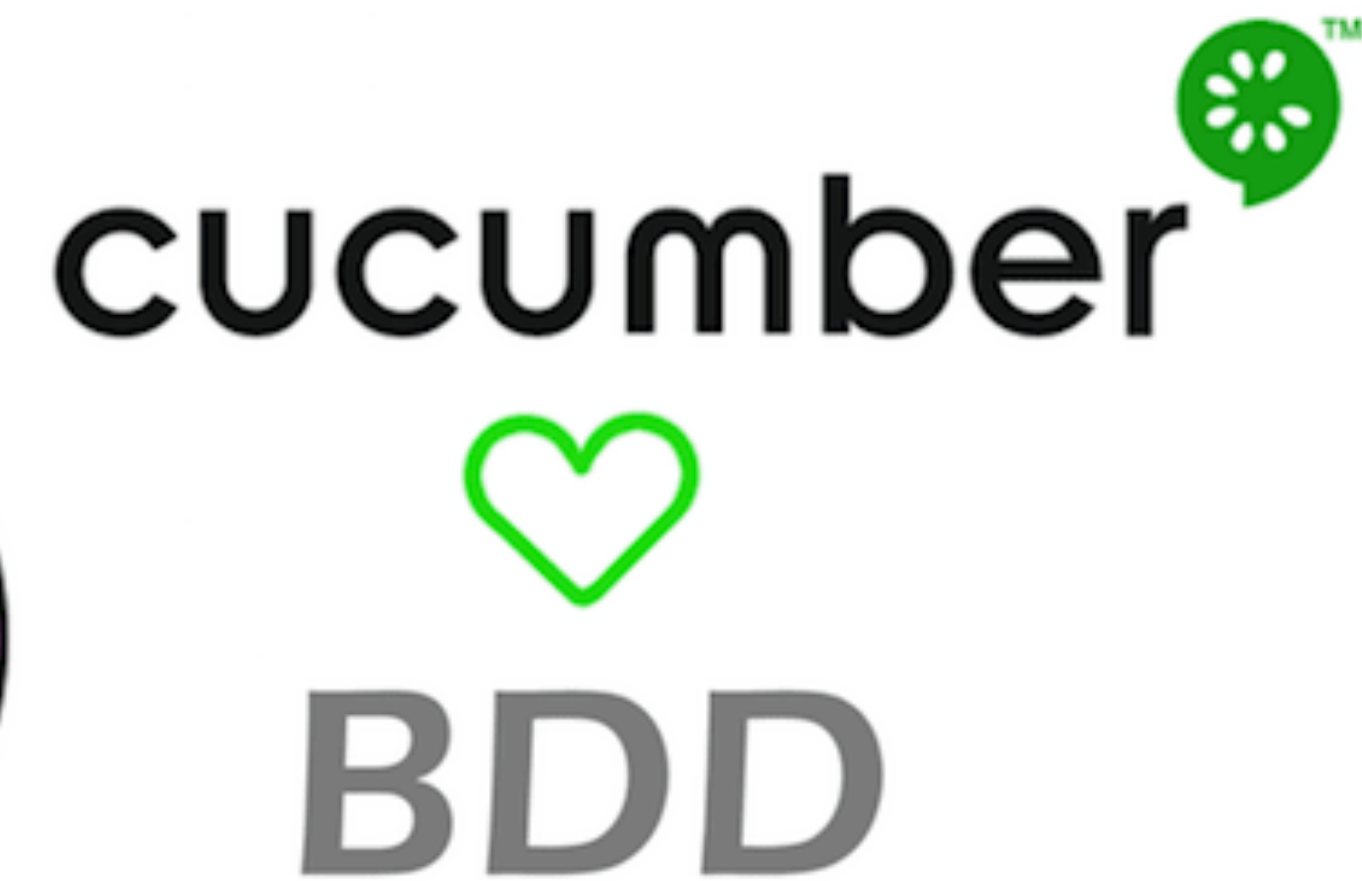
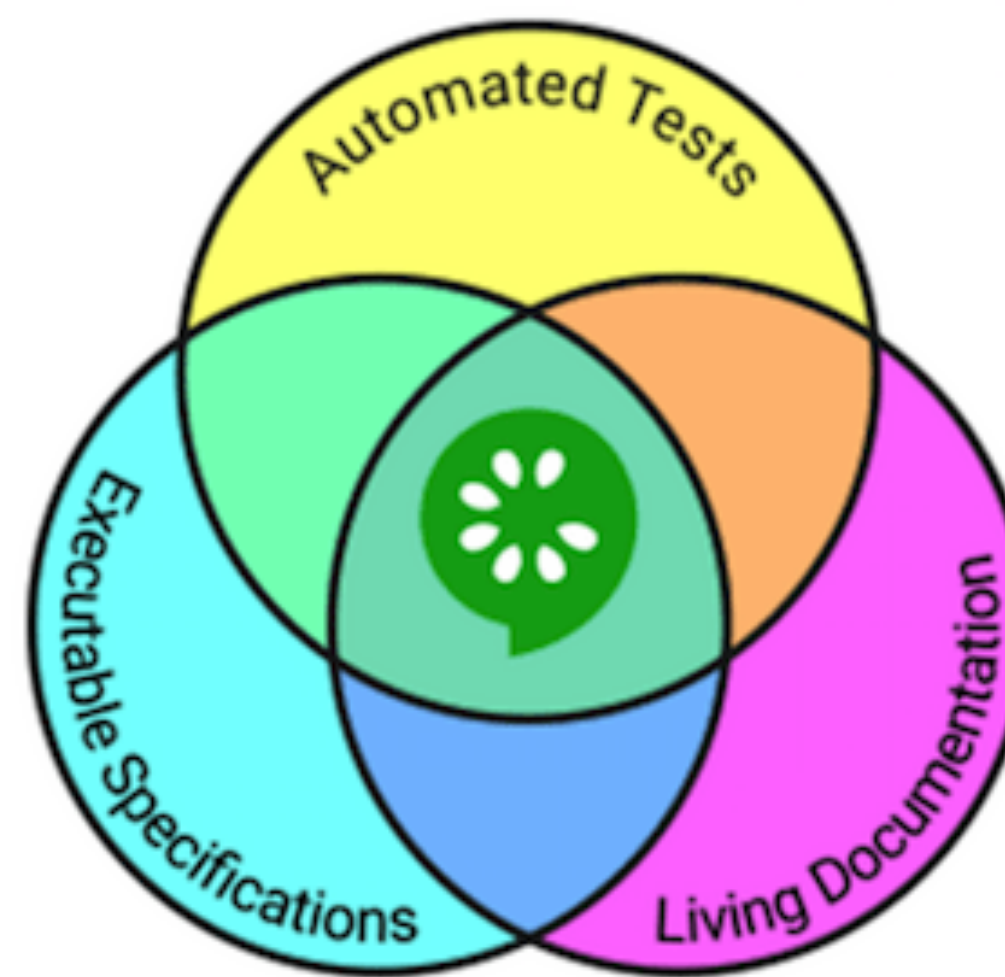
- Summary and analysis of specifications
- Domain and requirements modelling
- Resource analysis and planning
- Risk analysis
- First steps in BDD

3. Using Gherkin and Cucumber for Behavior Driven Development (BDD) (12h)

BDD Process



<https://testsigma.com/blog/behavior-driven-development-bdd-with-gherkin/>



<https://www.mindsmapped.com/introduction-to-cucumber/>

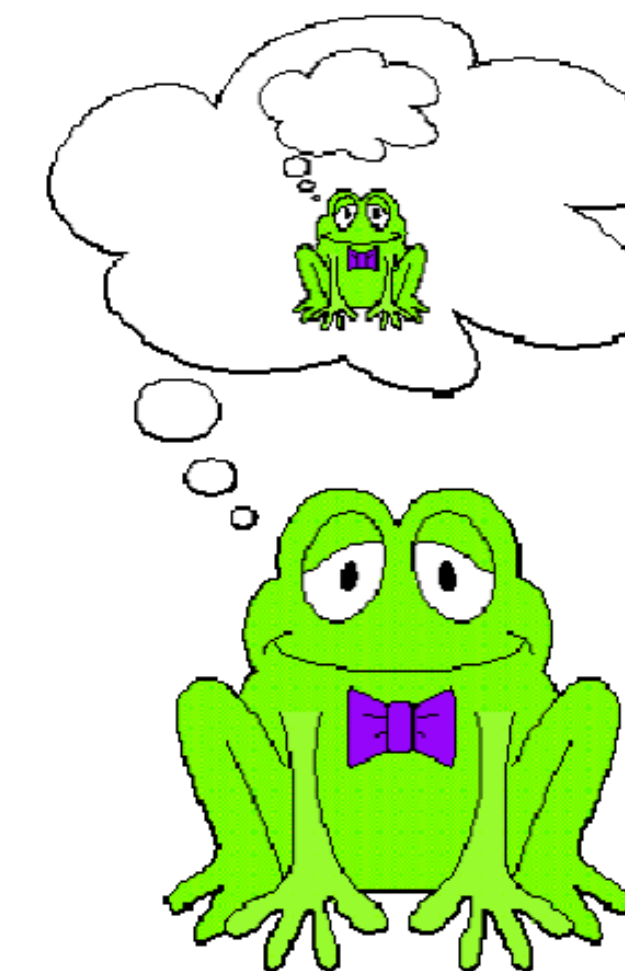
Teaching Approach - Problem Based Learning PBL

Traditional Learning



Memorization

Problem Based Learning (PBL)



Thinking about thinking

The 'problem' that we will use is "Student attendance in classes is too low"

We will analyse a digital solution to this 'problem' as an Information System

Cours Intégré - Systèmes d'information et transformation numérique

Évènement 485312 programmé le 7 février 2024 de 10:00 à 13:15 dans la salle J01 SalleTP 24pl.

Présences en cours

Faire l'appel

Enseignants

- Paul GIBSON

Groupes de participants

Nom	École	ID
Gp-EI2-PSI-CSC4104	imtbs	93317

Étudiants

- Liste Photos

Exporter en XLS

Nom	Prénom	Email	Login	ID
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