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Software Engineering and Design

Case Study 1 – Task 1

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Introduction to the MHC-PMS (1)

A regional health authority wishes to procure an patient management system (PMS) to manage the care of patients suffering from mental health problems. The overall goals of the system are

1. To provide medical staff with timely information to facilitate the treatment of patients.
2. To generate management information that allows health service managers to assess performance against local and government targets.

Most mental health patients do not require dedicated hospital treatment but need to attend specialist clinics regularly where they can meet a doctor who has detailed knowledge of their problems. The health authority has a number of clinics that patients may attend. To make it easier for patients to attend, these clinics are not just run in hospitals. They may also be held in local medical practices or community centres. Patients need not always attend the same clinic and some clinics may support 'drop in' as well as pre-arranged appointments.

The nature of mental health problems is such that patients are often disorganised so may miss appointments, deliberately or accidentally lose prescriptions and medication, forget instructions and make unreasonable demands on medical staff. In a minority of cases, they may be a danger to themselves or to other people. They may regularly change address and may be homeless on a long-term or short-term basis. Where patients are dangerous, they may need to be 'sectioned' – confined to a secure hospital for treatment and observation.

Introduction to the MHC-PMS (2)

Users of the system include clinical staff (doctors, nurses, health visitors), receptionists who make appointments and medical records staff. Reports are generated for hospital management by medical records staff. Management have no direct access to the system.

The system is affected by two pieces of legislation

1. Data Protection Act that governs the confidentiality of personal information
2. Mental Health Act that governs the compulsory detention of patients deemed to be a danger to themselves or others.

The system is NOT a complete medical records system where all information about a patients' medical treatment is maintained. It is solely intended to support mental health care so if a patient is suffering from some other unrelated condition (such as high blood pressure) this would not be formally recorded in the system.

Imagine your project team won the contract for implementing the MHC-PMS.

Good luck 😊

CS Task 1: First Analysis

In your team, identify

1. target users
2. key features (from users' perspective)
3. critical success factors
 - ▶ http://en.wikipedia.org/wiki/Critical_success_factor
4. potential system components and architecture
 - ▶ both on a high level of abstraction

Presentation of results: 27.08.13, 5 min per team

- ▶ 5 points for documents
- ▶ 5 points for presentation

Hints

- ▶ keep your project diary up to date
- ▶ place all work results in your repository under path `... \doc \task01 \`