

The Haematology Treatment Aid

Providing Personalized Information to Patients and Carers

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You have cancer

The Haematology Treatment Aid

Outline

- Project Aims
- Portal Functionality
 - Administrator Functionality
 - Patient Functionality
 - Researcher Functionality
- System Design
 - Data Model
- System Development
- Conclusion

Aims

- Help patients find information
 - Customised to:
 - Patient's condition
 - Available treatment options
 - Hospital where treatment occurs
- Determine which information is most important
 - Aid communication with future patients

Functionality

1. Physician diagnoses patient
2. Patient registered in system
3. Patient uses system
4. Researcher analyses patient interactions



Administrator Functionality

Search:

• PRINT

• LOG OUT



Patient Profile

First name:

Last name:

Date of birth:

Gender:

Hospital:

Diagnosis:

Please select: ▼

Please select: ▼

Please select: ▼

Treatment:

Please select all that apply

☐ Chemotherapy ☐ Bone marrow transplant ☐ Palliative care ☐ Clinical trials

☐ I confirm that this patient has been randomised to the intervention group.

Submit

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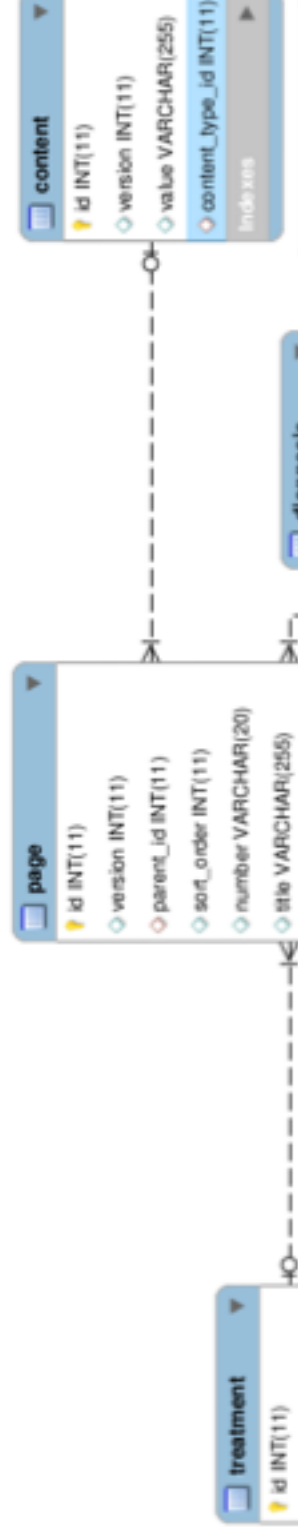
This research is funded by the Cancer Institute NSW.

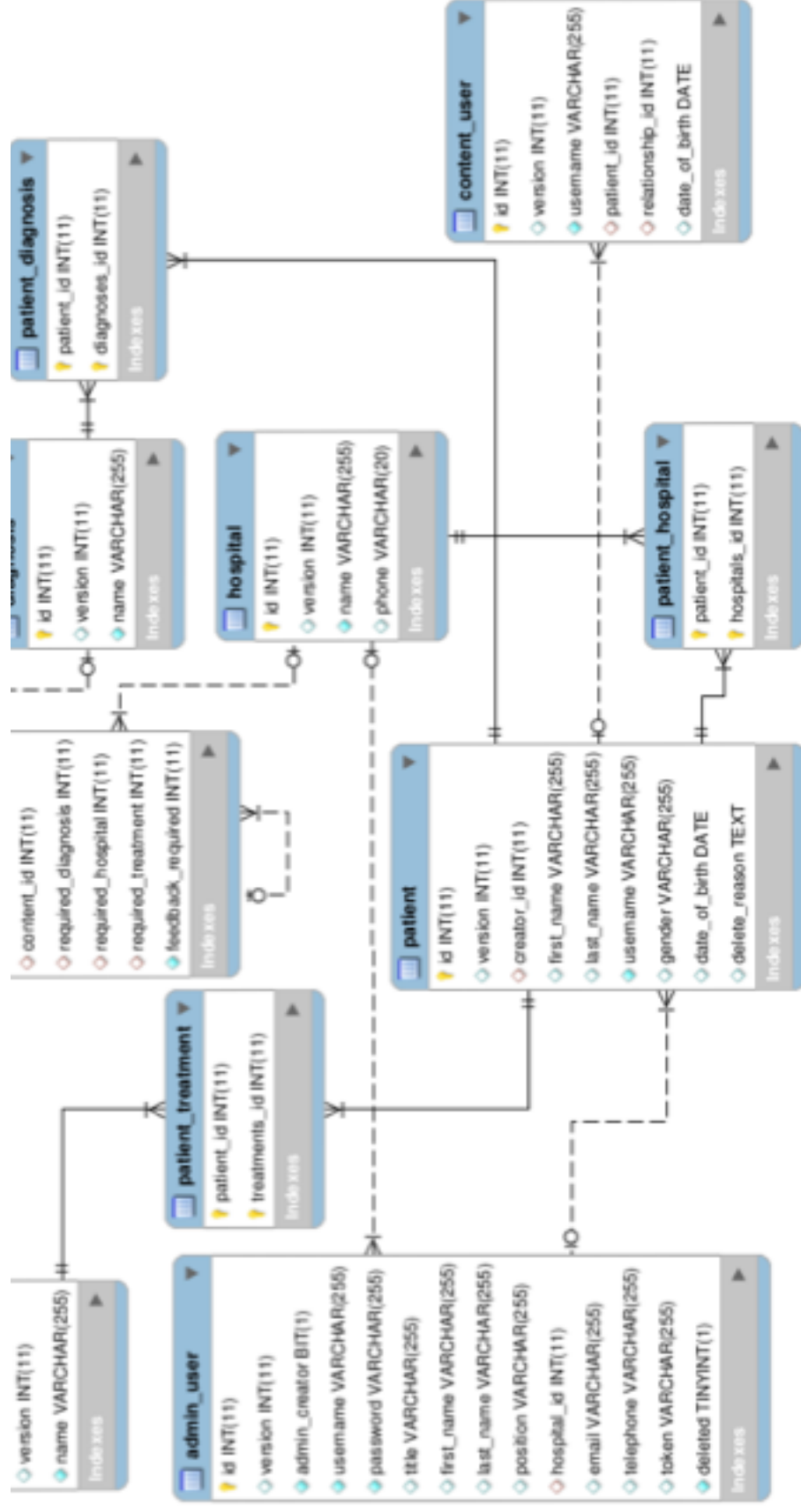


Patient Functionality

- User Interaction
 - User may be presented with feedback dialog
- User Tracking
 - Automatic logging of:
 - Which items are viewed
 - For how long
 - When videos are paused/played
 - Requests for more information
 - etc.

- Original data:
 - Single Microsoft Word document
 - Set of video files
- Initial tasks:
 - Convert videos to Web format
 - Convert Word document to HTML pages





The Haematology Treatment Aid

- Typical Model-View-Controller pattern
 - Spring MVC with MySQL backend
- Aspect-Oriented Programming cut points used to filter data
 - *AfterInvocationProvider* configured to filter the pages available to a patient based on their condition, treatment options, and hospital
 - Customisation logic thus outside of Controller code

Enhancing the system

- Contacted a year after development to “make some changes” to the

system

- Adding/updating some content
- Adding a new cancer type
- Fortunately, not too difficult
 - Replace old static files with new versions
 - Add new pages to database
 - Add new tuple to diagnosis table



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Thank you

DISCUSSION

The Haematology Treatment Aid: Providing Personalized Information to Patients and Carers

Paul, D. J., Henskens, F. A., Bryant, J., Smits, R., Sanson-Fisher, R. W., and Stevenson, W.

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