



ENSE 470, Software Systems Design (Winter 2018)

Project requirements

Story

The company “Health & Environment Labs Limited (HELL)” specializes in providing support for 50+ software tools. These tools enable HELL’s users to conduct a variety of health and environmental related activities (See Appendixes A and B for the complete list of software). As the data held within many of the software tools that HELL supports are subject to national and provincial health and information protection policies and legislation, as much of the data relates to patient health and other forms of proprietary and otherwise sensitive data, software users must request access to each individual software tool they wish to use. Cost of the software also limits usage/number of licensed software users at a given time.

Software users request access to the software tools by obtaining approval from one of the verified and unique software approver(s) for the tool in question. This is achieved by getting an approver’s permission via signature, digital signature, or email approval. It’s important to note that software users often do not know who software approvers are, many times obtaining approval from an incorrect source, e.g. software users may try to obtain approval from their direct report but, more often than not, their direct report is not a verified approver (their direct report may assume they have approval privileges but in fact they may not). After securing approval (perceived or otherwise), the software user submits their request to the HELL Data Stewards/IT Staff for vetting and processing.

HELL’s Data stewards/IT staff, known from this point on as “analyst(s),” currently receive access to software requests from potential software users,

1. Via email
2. Via faxed form (**NOTE:** there are many different form revisions “out in the wild”)
3. Via web (webform)

Often the non-webform submissions lack the required information to provision the software being requested. This results in the analyst having to contact the software user to confirm information provided (and/or re-submit). Regardless of how the request for software is received, vetting is required to confirm the software user has truly obtained the required approval for access to the software in question. When vetting, the analyst must look up the approver(s) for the software being requested and contact them via email/phone to confirm approval. See Appendixes A and B for a complete listing of software approvers. It’s important to emphasize that the software approver names are held in two different files (as the files are managed by two different groups):

1. An Excel spreadsheet (managed by HELL analysts)
2. A PDF (managed by non-HELL analysts)

Assume all approvers on these lists are legit/verified and phone numbers/emails are provided in HELL’s company listing. An analyst must search both files as some of the approvers in the files are duplicated or omitted. Furthermore, software users sometimes use acronyms when requesting software which can add to the confusion in vetting and processing.

After vetting is complete and approval is confirmed, the analyst processes the software user’s request and provisions access. If approval is denied or rejected in any way (e.g. an incorrect approval was obtained), the analyst communicates such to the software user accordingly and asks them to re-submit if necessary.



Vision

- **Why:** To challenge the current status of software access management in HELL
- **How:** Propose a simpler and less error prone way of enabling and handling software access requests and access provisioning in HELL
- **What:** Design and develop a singular source, user-friendly, and highly extensible (design pattern driven) data governed tool that enables HELL data stewards/IT analysts to more successfully handle, steward/maintain, and provision access requests accordingly

Rationale

Providing a better solution to HELL's clients and employees when requesting, handling, and/or provisioning software access, especially given the sensitivity of the data within supported software (and the potentially auditability).

Stakeholders

- Software users
- Software approvers
- Data stewards/IT staff
- National/Provincial auditors (example of a future phase stakeholder?)

Assumptions

- Use of web and database programming concepts (your group's choice)
- Must employ a minimum 2 design patterns and provide rationale as to why the design patterns were selected and used

Milestones & report-out dates

- Milestone 1 (Due January 18): Current state value stream map (VSM)
- Milestone 2 (Due January 25): Future state VSM
- Milestone 3 (Due February 1): Story mapping and diagramming activities
- Milestone 4 (Due March 1): Data cleansing, activity diagramming, and lo-fidelity mockups
- Milestone 5 (Due March 15): Class relationship diagramming and test scripting
- Milestone 6 (Due March 29): Test validation results and project delivery
- Milestone 7 (Due April 12): Code swap and refactoring/quality report

Appendix A and B are on pages 3 and 4



Appendix A

The spreadsheet (table) of software approvers

Software name	Acronym	Approver(s)
Operating Map of Gastropathy	OMG	Chester Field, Ida Claire
Limited Operating Liability	LOL	Amanda Huginkiss
Total Mastering of Incisions	TMI	Les Wynan
Fixed Orthodontics Medical Operations	FOMO	Tara Dactyl
List of Transactions and Redactions	LOTR	Claire Voyant
Northern Ozone & Ocean Biome	NOOB	Will Tickelu
Alternative Sewage System		Polly Graff
Relational Observation System Limited	ROFL	Stan Dupp
Fast Family Finder		Gene Poole
Sustainable Xeriscaping	SuX	Neil Down
World Terrain & Forestry	WTF	Brock Lee
Web Utility Table	WUT	Dot Matricks
Data & Utility Heuristics	DUH	Goldie Locke
Observation (version 1)	OB1	Ally Katz
National Ozone Observatory Bot	NOOB	Leah Tarde
Heart Ultrasound Heatmaps	HUH	Dr. Chris P. Bacon
Free MySQL Logger	FML	Sue Flay
Heart, Abdomen, and Head Assessor	HAHA	Derry Yare
Waste Electronic & Wireless Equipment	WEWE	Krystal Ball
Biosphere Air and Gas Interpreter		Honey Potts
Original Record of Landscape and Yards	ORLY	Seymore Butts
Selected Analytical Methods	SAM	Bud Light
Storm Water Management		Filet Minyon
Planetary Environmental Reference System	PERS	Robyn Banks
Snowmed Analyzer System Extended Edition	SASEE	Dyl Pickel
Picture Archive and Communication System	PACS	Paige Turner
Radiology Information System	RIS	Dr. Jed I. Knight
Download Urgent Medical Backups	DUMB	Justin Case
Pharmaceutical Information Program	PIP	Crystal Ball, Pea Pu
Remote Health Checker		Al Dente, Douglas Furr
Remote Stroke Checker		Al Dente, Douglas Furr
Chronic Disease Management		Biff Wellington
Ambulance Schedule System		Art Dekko
Care Manager		Clay Potts
Lab Information System	LIS	Al Falfa
Patient Admitter Tool	PAT	Frank Furter
Spillage Locator Tool		Harry Beard
Environmental Assessor Tool		Anna Conda
Statistical Analysis System	SAS	Justin Thyme
Statistical Package for Social Sciences	SPSS	Ollie Gark
Cisco WebEx		Pete Moss
Homecare System		Rusty Foord
Electronic Medical Record (Viewer)	EMR	Tom Foolery

Appendix B

PDF of approvers (in the form, “Name of approver(s)”: “Acronym or Name (Acronym) of software/tool”)

Warren Peace: eHealthChart

Linda Hand: Environmental Home Manager

Seymore Butts: ORLY

Lotta Noyes: Clinical Data Repository (CDR)

Barb Wyre: Netcare Occupation & Observation Base System (NOOBS)

Stan Dupp: ROFL

Bunsen Berner: Find a Doctor (FAD)

Bud Light: SAM

Tara Dactyl: FOMO

Pea Pu and Crystal Ball: Drug Profile Viewer (DPV), PIP

Ida Claire: Abdomen Tissue and Analysis Tool (AT-AT)

Ginger Vitus: Provider Coverage Viewer (PCV)

Jack Uzzi: Transcription Magic Interpreter (TMI)

Robyn Banks: PERS

Mason Jarr: PharmaCare

Ty Kuhn: Provider Registry System (PRS)

Wazziz Naime: Electronic Lab System Interpolator (ELSI)

Rod Curtains: myeHealth (For British Columbia)

Tom Foolery: EMR

Kayne Kun: eReferral

Rocky Rhodes: myeHealth (For Alberta, Saskatchewan, Manitoba)

Sandy Beech: Cleaning Product Analyzer

Sue Vlaki: Greenhouse Gas Analyzer

Alan Rench: Pollution Alerts Datamart (PAD)

Art Dekko: Ambulance Schedule System

Anne Thrax: Water and Land Data Observer (WALDO)

Annita Job: Waste Observation System

Art Major: myeHealth (For Ontario)

Tess Tamoni: myeHealth (For Quebec)

Al Pacca: myeHealth (For Yukon, Northwest Territories, Nunavut)

Art A. Choake: Weather Analyzer Software System Unix Platform (WASSUP)

Benny Fitz: Weather and Ozone Observation Knowledge Emulator Enterprise Edition (WOOKEEE)

Anna Nimmity: Microstrategy

Pete Moss: Cisco WebEx

Anna Conda: Environmental Assessor Tool

Mike Raffone: myeHealth (for New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador)

Sonny Day: Clinical Admission Manager

Wil Doolittle: Ambulance Supply System

Douglas Furr and Al Dente: TeleCare

Gladys Dunn: Surgical Information System (SIS)

Dyl Pickel: SASSEE

Paige Turner: PACS

Leah Tarde: NOOB