

**DEVELOPMENT OF AN ONLINE MULTIMEDIA DATABASE FOR PROCESSING
TRAINING REQUESTS AT THE
PRINCE SULTAN CARDIAC CENTRE**

MARY ANGELICA E. BONUS

Faculty of Information and Communication Studies
Bachelor of Arts in Multimedia Studies
University of the Philippines
OPEN UNIVERSITY
College, Laguna
2020

Acknowledgment Page

Thank you to everyone who helped me accomplish this research project. To Kuya Raquib who had been an essential part of this journey, without you this project would not even be possible.

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Abstract

This research project focuses on developing an online interactive multimedia database, which was conceived to be used in processing training request applications at the Prince Sultan Cardiac Center, Riyadh (PSCC).

The database was tested by doctors, interns, and students from various educational institutions, as well as by the administrative staff of PSCC, and it proved that it could be used to replace the current system wherein staff uses a separate Excel sheet to log trainees requests and their information and write 3-4 memos to complete a single request.

This report includes the processes involved to design and create the database and how the trainees and the admin staff at PSCC reacted to the use of the system.

A review of the literature about multimedia databases provides insights about its importance from both a technological and business standpoint. Through this project, we will find out how this online multimedia database affects the admin staff's workload and how it can be used as an effective tool for processing training requests and data record-keeping.

Introduction

This current generation is considered as the Information Age, which is characterized by the rapid availability of information and the widespread recognition of the importance of information as a resource. ^[1] In an attempt to convert information and intellectual capital into an electronic systemized procedure, the online multimedia database for training requests at PSCC has been developed.

In 2018 and 2019, the Academic and Training Affairs at PSCC received a total of 1313 trainees. ^[2] ^[3] These trainees include doctors, interns, and students from various hospitals and universities within the Kingdom of Saudi Arabia. To process a training request, staff from the Academic Affairs has to write at least three to four memos to complete the approval or rejection of only one (1) training request. Each staff also uses a separate Excel sheet to log the details of the trainees and to keep track of them.

To improve the current process, an online multimedia database was designed and created to serve as a tool to submit, process, and record all the training requests submitted to PSCC. Implementing a new method to replace an old and reliable system was a big challenge since there's no guarantee that staff would be adaptable to the changes, as most of them rely on their strategies to keep track of the work.

Moreover, PSCC is a government institution under the umbrella of the Ministry of Defence and Aviation, ^[4] therefore the IT Department has strict rules regarding Internet accessibility and staff has limited permission to access outside web domains. This would pose a big challenge since the database that was created would need Internet access to work.

This project also involved a need for a reliable programmer who could respond to the needs of the users, as well as the needs of the system when immediate changes are necessary to be implemented as soon as they are identified.

The primary goal of creating this project is to prove that there are ways available to improve how training requests are received and processed at PSCC, to provide a means to lessen the workload of staff, and most importantly, to create a system that would allow continuity of work among the staff in the organization. This is critically important nowadays as the government of Saudi Arabia has been strictly implementing the replacement of expatriates to hire Saudi nationals ^[5] and work tasks are now being delegated to them. According to Hansen (2002), information gets passed on across people from different units/departments and information may be transmitted in a certain degree of imperfection. ^[6] By developing this platform, this issue may be reduced, if not eliminated.

The Research Question

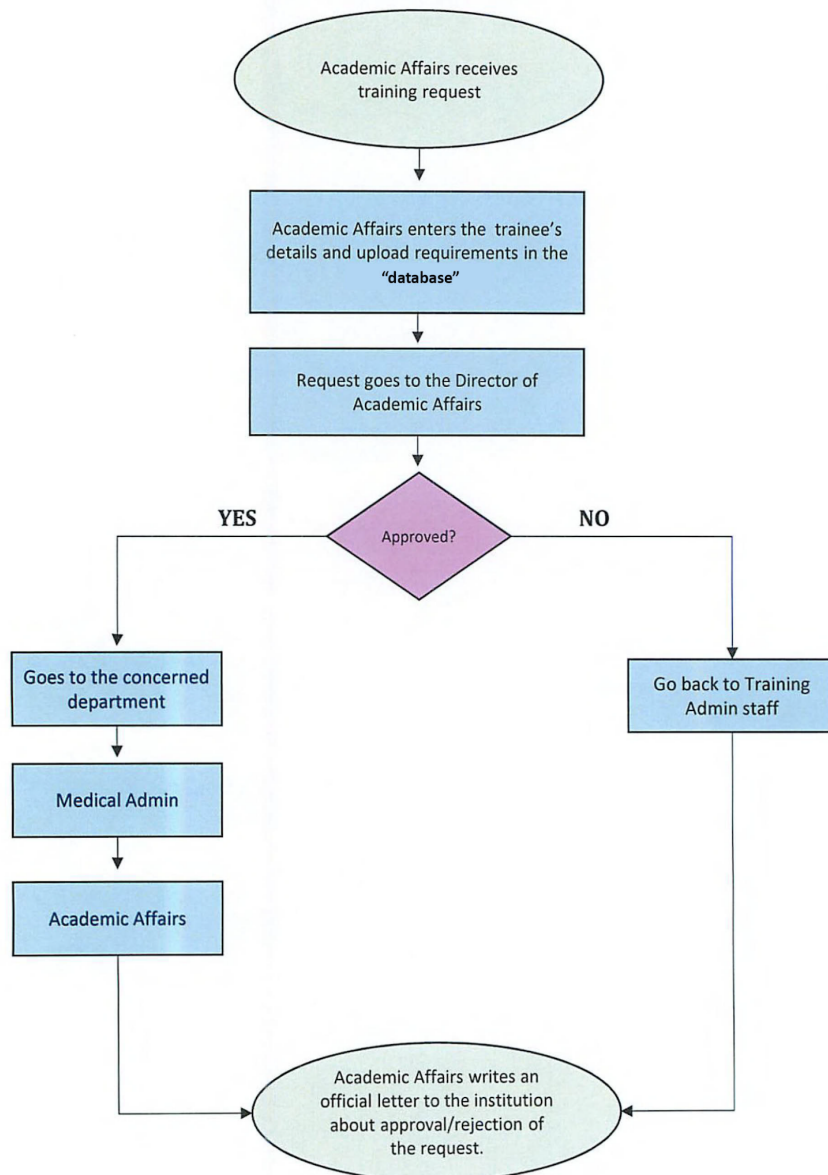
Grad & Bergin (2009) wrote that databases proved to be of help to a lot of companies as they provide a simple, standard way to share data to multiple users and also provide portability, as they enable users to move data and process from one platform to another with relative ease. ^[7] Through this research project, a new system was developed to assess how an online multimedia database could transform the way training requests are handled at PSCC. Will this multimedia database pose more complications to its targeted users? Are the users willing to embrace this advanced technology

and to allow changes in their current work process?

Background

Processing a training application at PSCC starts when an official letter is received from either a hospital or university, sending their students or doctors to train for a certain duration. This prompts the Academic Affairs to write a memo to the requested department/specialty, asking for the suitability of the request, while considering the availability of qualified staff or a training faculty to handle the trainee. The normal time-frame to receive feedback from the department is 2-5 business days, which will again prompt the Academic Affairs to write a letter addressed to the hospital/university, telling them about the outcome of their application, whether it's approved or rejected.

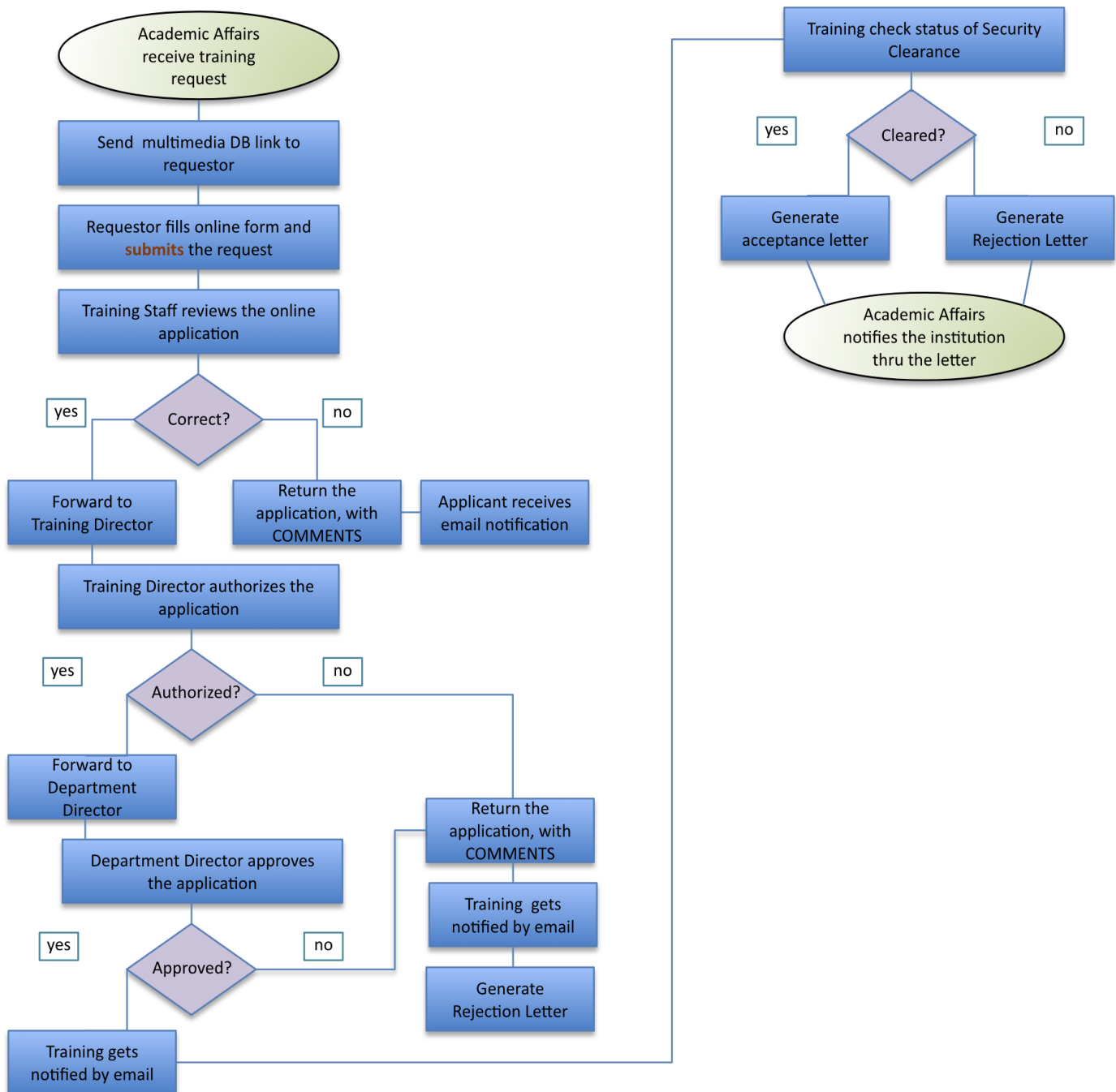
Figure 1: The workflow of the manual procedure of processing training request at PSCC



The online multimedia database:

Attempting to improve the current process, an online multimedia database was designed and created to collect text information, as well as images (JPEGs or PDF files) in a form of attachments from the training applicants. The database is also interactive, that upon a click of a button, the request is sent to the necessary approver without having to write memos. It has features that can auto-generate template letters to be sent to the requestors to tell them the status of their request.

Figure 2: The workflow of the online multimedia database for training applications



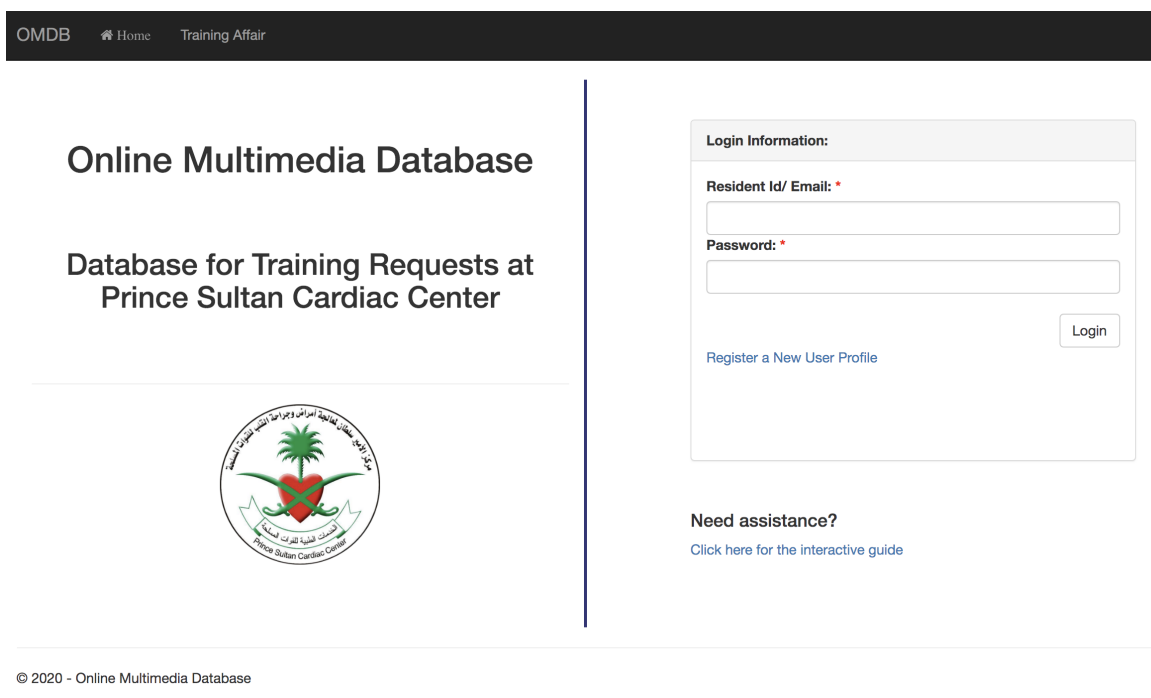
What is a multimedia database?

An article from Tech-FAQ (2019) defines a multimedia database as a database that hosts one or more primary media file types. [8] It is used to present multimodal information in conjunction with computer technology and includes data type such as: [4]

- Text
- Graphics (drawings or illustrations)
- Images
- Animation sequences
- Video
- Audio

The online multimedia database developed for processing training requests at PSCC includes a combination of the above-listed data types and can be accessed from this link, <https://www.pscctrainingdb.info/Home/>.

Image 1: Homepage of the online multimedia database



OMDB Home Training Affair

Online Multimedia Database

Database for Training Requests at
Prince Sultan Cardiac Center

المرکز الطبي للمعالجة أمراض وجراحة القلب بالسلطنة
السلطنة العمانية للقلب
Prince Sultan Cardiac Center

Login Information:

Resident Id/ Email: *

Password: *

Login

[Register a New User Profile](#)

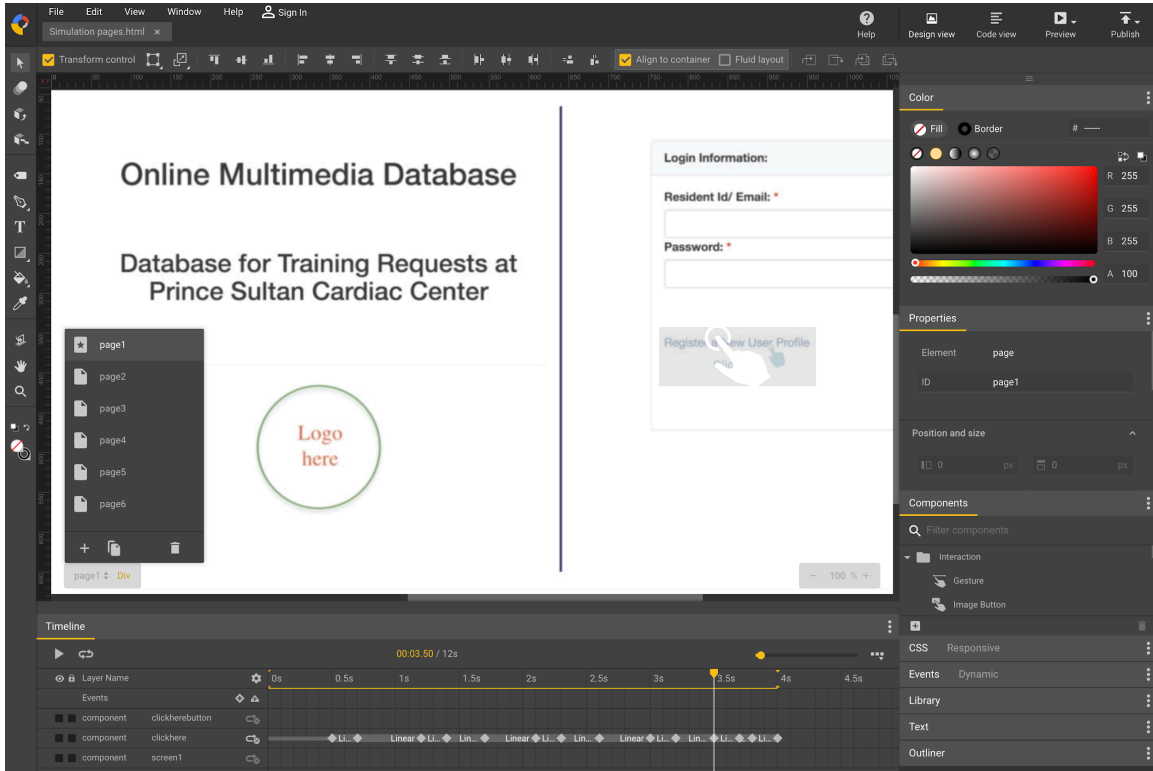
Need assistance?
[Click here for the interactive guide](#)

© 2020 - Online Multimedia Database

The homepage also includes an interactive guide to assist first-time users on how to deal with the system. For quick reference, the interactive guide can be visited from this link, <https://www.pscctrainingdb.info/Guide/index.html> or could be accessed directly from the platform.

The interactive guide was created using Google Web Designer. Initially, screen recordings were taken while testing the database, then the output videos were edited using Final Cut Pro. The videos were based on the step-by-step procedure of using the system, each piece was added to an HTML page and conjoined via a hyperlink button that will lead users to the next step.

Image 2: Screenshot of the interactive guide done in Google Web Designer



Methodology

The research was conducted at the Prince Sultan Cardiac Centre, Riyadh, Kingdom of Saudi Arabia. Designing the online database started in December 2019, then its construction commenced in March 2020. The system was initially sent out for testing from 19 October 2020 to 24 November 2020.

The procedure consists of the preliminary investigation phase (data collection); the design phase; the construction phase; the validation, testing, and revision phase.

The object of this research is based on interactive multimedia and databases like the HR E-Leave System at PSCC and the Mumaris System of the Saudi Commission for Health Specialties (SCFHS), you may refer to this 2017 YouTube video on how the Mumaris System works, <https://youtu.be/PaJJ5vVkJuM>.

The instruments used in this study are the statistics and reports generated from the PSCC Academic Affairs' annual submission, as well as the questionnaire responses and interviews from the targeted users of the database.

Research data were obtained from the trials and the first-hand experience of the targeted users. To measure the respondents' attitudes towards the multimedia database, the users were asked to provide an assessment using the 5-Point Likert Scale, ^[9] 5 being the highest level of agreement, with indicators used in connection with the system's ease of use and the level of computer and

technological know-how of the user. Respondents were also asked to give recommendations and feedback to the online multimedia database developed.

Techniques of data analysis used in this research is descriptive analysis percentage using the formula:

$$P (\%) = n/N \times 100$$

Source: <https://getcalc.com/math-functions-formula.htm>

Description:

P: score percentage (%)

n: number of obtained score

N: number of maximum score

Table 1: The scoring criteria was based on the following 5-Point Likert Scale

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Very Poor	Poor	Moderate	Skilled	Very Skilled

Results and Discussion

The development of an online multimedia database for processing training requests at Prince Sultan Cardiac Centre produced a system that could replace the procedure currently implemented, the system is accessible via the Internet through this link, <https://www.pscctrainingdb.info/Home/>. The project was completed in 10 months from December 2019 until September 2020 and was presented to the Directors of Academic Affairs for validation and testing. Dr. Abdulmajeed Al Otay allowed the system to be sent out and be tested by targeted users on 19 October 2020 and feedback was collected until 24 November 2020.

Preliminary Investigation Stage (Data Collection)

Processing training requests at Prince Sultan Cardiac Centre is a routine task and has a clear step-by-step procedure that is easy to follow and do, except that it requires several memos that have to be written and sent to various concerned approving bodies. The development of an online multimedia database for the above purpose intends to innovate the process. The main priority is to produce a system where training applicant’s information could be accessed in a unified format by the PSCC staff who deal with rotation requests.

Data was collected from reviewing the Academic Affairs’ annual report, as well as the Excel trackers that are used to keep trainee’s information. Data such as the list of PSCC departments who deal with trainees and the list of universities and hospitals who send their students or doctors for training at PSCC were made available during this stage.

The idea was presented to Dr. Tarek Momenah, Assistant PSCC Director for Academic Affairs, and it was concluded that the targeted users may not have the same level of expertise in using an advanced database, therefore the system to be developed must be simple and user-friendly, but should involve and cover all the processes done for training requests such as collecting personal data from applicants via text format and their documents in a form of PDF/JPG, and it must be interactive that upon a click of a button, the training request goes to another approver's account without having to write a memo.

Designing the multimedia database

At this stage, the first thing done was to design the interface for data and document collection. Microsoft PowerPoint was used for the process documentation. Process documentation, according to Flor (2002), describes processes and events in order to come up with a systematic view of field experience. ^[10] The documentations were used to easily track changes during the course of the research and so that feedback/explanations could be easily provided for the benefit of the programmer who will work on the project, as it will serve as his guideline.

At this phase, all the menus and click buttons were also identified, the design continued on with the selection of color themes and design background. Design activities also included the survey questionnaires for the user response to the testing phase.

The system's process was designed based on the workflow of the manual procedure currently implemented at PSCC, except that the multimedia database is meant to be interactive that upon a click of a button, the request moves to another approver without having to write a memo or letter.

The below images are screenshots of the initial design created, which contain the usual information that are collected and tracked on a trainee's application.

Image 3: Design of the training applicant's interface

Training Request Details

Residence ID:	
First Name:	
Second Name:	
Third Name:	
Email:	
Mobile:	
Sponsor Name:	
<input checked="" type="radio"/> government	<input type="radio"/> private
Level: <input type="text"/>	Specialty: <input type="text"/>
Training Duration:	
Start:	DD MM YYYY
End:	DD MM YYYY

Requirements

Request Letter (1 MB)	Residence ID (1 MB)	SCFHS Acceptance Certificate (1 MB)	Saudi Council (1 MB)
BLS (1 MB)	Medical Check (2 MB)	GPA/Academic Record (2 MB)	Training Objectives (2 MB)

submit

Status of Application:
Note: Please follow up to trainingadmin@pscc.med.sa for applications pending for one (1) week.

SUBMITTED ON-PROCESS APPROVED/REJECTED

Default view: *Applicant's end*

Level (dropdown list), options:

- Fellow
- Resident
- Intern
- Student
- Other

Specialty (dropdown list), options:

***See page 20*

Buttons:

Government or private

Image 4: Design of the PSCC admin staff's interface

Training Request Details

Residence ID:	
First Name:	
Second Name:	
Third Name:	
Email:	
Mobile:	
Sponsor Name:	
<input checked="" type="radio"/> government <input type="radio"/> private	
Level: ▼	Specialty: ▼
Training Duration:	
Start: DD MM YYYY	
End: DD MM YYYY	

Requirements

Request Letter <small>(1 MB)</small>	Residence ID <small>(1 MB)</small>	SCFHS Acceptance Certificate <small>(1 MB)</small>	Saudi Council <small>(1 MB)</small>
BLS <small>(1 MB)</small>	Medical Check <small>(2 MB)</small>	GPA/Academic Record <small>(2 MB)</small>	Training Objectives <small>(2 MB)</small>

submit

Status of Application:
Note: Please follow up to trainingadmin@pscc.med.sa for applications pending for one (1) week.

SUBMITTED
ON-PROCESS
APPROVED/REJECTED

Default view: **Training Affairs**

Are the application details correct?	<input type="checkbox"/> Y <input type="checkbox"/> N
Reviewed by:	USER (Training Staff)
Do you authorize this request?	<input type="checkbox"/> Y <input type="checkbox"/> N
Authorized by:	USER (Training Director)
Do you approve this application?	<input type="checkbox"/> Y <input type="checkbox"/> N
Approved by:	USER (Department Director)
Security clearance received?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
Generate acceptance letter?	<input type="checkbox"/> Y <input type="checkbox"/> N
By:	USER (Training Staff)
Addressed to:	Dr. Fname Lname Institutional title Institution name

Training Staff: asweeney@pscc.med.sa falrashed@pscc.med.sa mbonus@pscc.med.sa	Training Director: tmomenah@pscc.med.sa aalotay@pscc.med.sa lalshengeiti@pscc.med.sa
--	---

Department Director:
based on **Specialty, emails on page 20

8

Constructing the multimedia database

The online multimedia database is a web application created using ASP.NET, C#, Javascript and HTML, while the database management system used is the Microsoft SQL Server. The program is hosted via the Internet Information Services (IIS) and Reverse Proxied by NGINX (Engine X).

During this phase, the system was tested countless times and came back and forth with updates and requirements that need to be incorporated, to allow it to run with maximum capability. An important factor during this stage is to find a programmer not just to build the system, but someone who is also willing to support you with your updates and with the additional recommendations posed later on, like Security procedures, hosting, etc.

Validation and Testing Stage

The multimedia database was presented to the Director of Training Department and the Assistant PSCC Director for Academic Affairs, to test its feasibility to replace the current procedure, both confirmed and validated the platform developed. At this stage, permission was given to send out the URL link of the multimedia database to various institutions, as well as the PSCC admin staff for testing and to see how the targeted users would react to it.

Below are screenshots of the emails sent out for this purpose:

Image 5: Email sent to KSU

RE: Regarding KSU college of pharmacy training request

Training Admin

Mon 10/19/2020 3:32 PM

To: Bahiah A Aljebreen <baljebreen@KSU.EDU.SA>;

Cc: Nora Abdullah Alkhudair <naalkhudair@KSU.EDU.SA>; Raniah Ibrahim Aljadeed <raaljadeed@KSU.EDU.SA>; Omar Abdulrahman Almohammed <oalmohammed@KSU.EDU.SA>; ABDULMAJEED AB AZIZ AL OTAY <AAIOtay@pscc.med.sa>; ARWA DAKHEEL AL SHAMMARI <AALSHAMMARI@pscc.med.sa>; ANN MARIE SWEENEY <asweeney@pscc.med.sa>;

📎 2 attachments (3 MB)

مركز القلب.pdf; IPPE Manual - Institutional Pharmacy (434 PHTR) - 2020.pdf;

To our dear colleagues and trainees,

We are pleased to share with you this online database for training requests, a system that we can use to submit, track, and process training request applications at Prince Sultan Cardiac Center, Riyadh.

Kindly ask the interns to submit their rotation request using this link <https://pscctrainingdb.info/Home/>. They can find a **short interactive guide** in the home page to assist them on their initial use of the system.

Finally, we would love to hear your feedback by participating in this quick [survey](#) about your experience using the online multimedia database.

Thank you and best regards,

Academic & Training Affairs Administration
📍 Prince Sultan Cardiac Center, Riyadh KSA
☎ (P) 00966.11.478.30.00 ext. no. 87173/87453
☎ (M)
✉ (E) trainingadmin@pscc.med.sa

Image 6: Email sent to KSAUHS

RE: REQUEST FOR INTERNSHIP TRAINING ACCEPTANCE AT PRINCE SULTAN CARDIAC CENTER FOR THE INVASIVE CARDIO VASCULAR TECHNOLOGY & ECHO CARDIO VASCULAR TECHNOLOGY INTERNS OF KING SAUD BIN ABDULAZIZ UNIVERSITY FOR HEALTH SCIENCES AY 2020-2021.

Training Admin

Mon 10/19/2020 3:31 PM

To: Clinical Affairs CAMS <camsca@ksau-hs.edu.sa>;

Cc: Dr. Abdullah Al. Abdali <abdalia@ksau-hs.edu.sa>; Muneera Al Haydari <haydarim@ksau-hs.edu.sa>; anazifahad@yahoo.com <anazifahad@yahoo.com>; 'AnaziFah@NGHA.MED.SA' <AnaziFah@NGHA.MED.SA>; Ali Alshahrani <alshahrani@ksau-hs.edu.sa>; Taha Taher Ismaeil <ismaeil@ksau-hs.edu.sa>; BukhamseenMa@NGHA.MED.SA <BukhamseenMa@NGHA.MED.SA>; turkih2@ngha.med.sa <turkih2@ngha.med.sa>; ABDULMAJEED AB AZIZ AL OTAY <AA.Otay@pscc.med.sa>; ARWA DAKHEEL AL SHAMMARI <AALSHAMMARI@pscc.med.sa>; ANN MARIE SWEENEY <asweeney@pscc.med.sa>;

📎 2 attachments (1 MB)

198_ Rqst for Internship Acceptance at Prince Sultan Cardiac Center (PSCC) for ICVT Intern.pdf; 197_ Rqst for Internship Acceptance at Prince Sultan Cardiac Center (PSCC) for Echo Cardio Vascular Interns - 2021.pdf;

To our dear colleagues and trainees,

We are pleased to share with you this online database for training requests, a system that we can use to submit, track, and process training request applications at Prince Sultan Cardiac Center, Riyadh.

Kindly ask the interns to submit their rotation requests using this link <https://pscctrainingdb.info/Home/>. They can find a **short interactive guide** in the home page to assist them on their initial use of the system.

Finally, we would love to hear your feedback by participating in this quick [survey](#) about your experience using the online multimedia database.

Thank you and best regards,

Academic & Training Affairs Administration

📍 Prince Sultan Cardiac Center, Riyadh KSA
☎ (P) 00966.11.478.30.00 ext. no. 87173/87453
📠 (M)
📧 (E) trainingadmin@pscc.med.sa

Image 7: Email sent to PSCC Admin (Nursing)

FW: New Application Received_40135_Hanan Abdullah Al Ghamdi

Training Admin

Tue 10/27/2020 4:06 PM

To: NadminDoN <NadminDoN@pscc.med.sa>;

Cc: ABDULMAJEED AB AZIZ AL OTAY <AAIOtay@pscc.med.sa>; NadminCNM-NE <NadminCNM-NE@pscc.med.sa>; NadminPA <NadminPA@pscc.med.sa>; NadminEd_Sec <NadminEd_Sec@pscc.med.sa>;

Good afternoon Ms. Melissa,

This morning I spoke with Ms. Mary and Ms. Trini regarding the new **Training Request Database** that we are currently testing. Through this new system, we hope to lessen the number of letters we write to complete an approval/rejection of one request. Most importantly, we hope for this system to serve as a unified database for all the PSCC departments who caters trainees from outside the Center. The system is simple to use, it works similarly with the HR E-Leave System.

Since approval letters are usually signed by the DON, Ms. Mary advised me to assign you as the official approver of training requests for the Nursing Department. Today, we forwarded one training request to Nursing Admin with **ReqID 40135 for Ms. Hanan Abdullah Al Ghamdi**.

Hopefully, you can review the request and let us know if this is suitable to the Nursing Department. You can access the system using this link, <https://pscctrainingdb.info/Home/NewRequest?op=ViewMode&ReqId=40135&type=admin>. Your username is your PSCC email NadminDoN@pscc.med.sa and the default password is **123456**. We suggest that you change the password upon initial log in.

Lastly, below is a screenshot of the pending request. Please feel free to contact us anytime for any question, suggestions or feedback about this new system.

We highly appreciate your usual support.

The screenshot displays the 'Training Request' interface for Request ID 40135. At the top, there are navigation links for 'Home' and 'Maintenance', and a user profile for 'Angelica Bonus Cruz'. The main content area includes:

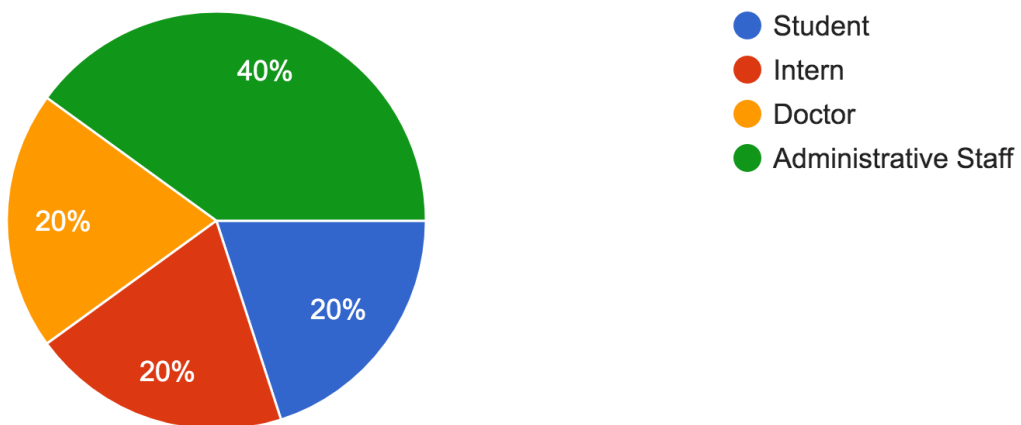
- Request ID:** 40135
- Name:** Hanan Abdullah Alghamdi, **Email:** lihnanli.7@hotmail.com, **Mobile:** 0538258680
- Sponsor:** OTHER, **Level:** Intern, **Other SponsorName:** Albaha University
- TRAINING DURATION:** START DATE: 24/11/2020, END DATE: 20/05/2021, REQUIRED ROTATION: NURSING
- REQUIREMENTS:** A grid of uploadable documents including Request Letter (1 MB), Residence ID (1 MB), SCFHS Acceptance Certificate (1 MB), Saudi Council (1 MB), BLS (1 MB), Medical Check (2 MB), GPA / Academic Record (1 MB), and Training Objectives (1 MB).
- Approval Status:** A series of checkboxes for 'Are the application details correct?', 'Do you authorize this request?', 'Do you approve this application?', 'Security clearance received?', and 'Generate acceptance letter?'. The 'Are the application details correct?' and 'Do you authorize this request?' checkboxes are currently checked (YES).
- Reviewed by:** Angelica Bonus Cruz
- Authorized by:** Dr. Abdulmajeed Al Otay
- Approved by:** (empty field)
- By:** (empty field)

Dr. Abdulmajeed Al Otay, Director of Training Department, as well as two other staff from the Academic Affairs, Ms. Ann Marie Sweeney and Ms. Arwa Al Shammari, were copied on the emails as their validation and support of the program's implementation.

Users Analysis and Observations

20% of the survey respondents are students while 40% consists of administrative staff, which includes training coordinators and PSCC administrators combined.

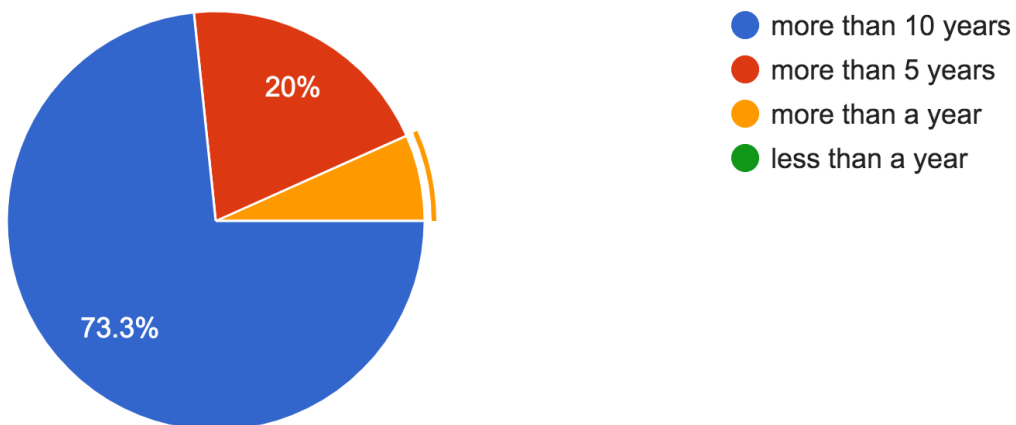
Figure 3: Respondent Type



Analysis of users involves the study of the characteristics of the targeted users in accordance with the design development of the multimedia database. These characteristics include their ability to easily follow the interactive guide provided, as well as identifying their level of skills in terms of computer and technological know-how.

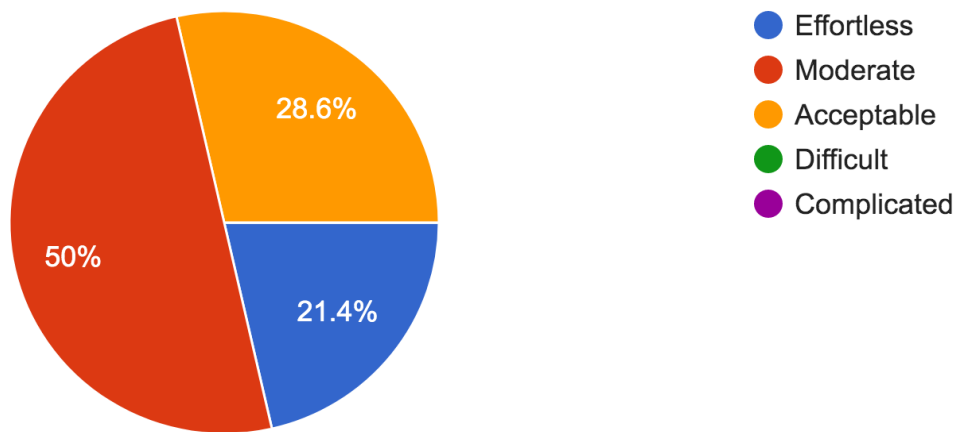
73% of the subjects responded that they have more than 10 years of experience using a computer, while 93.3% of the overall respondents rated themselves moderate to very skilled in terms of computer skills.

Figure 4: Respondent's experience in using a computer



None of the respondents find the system difficult or complicated.

Figure 5: Response on the multimedia database' ease of use



This observation is evident on the applicant's initial use of the system, it was noted that nobody called or emailed the office of the Academic Affairs to inquire how to use the platform. This proved that that system is easy to use and that the interactive guide is effective and easy to follow, as trainees were able to successfully submit their requests without asking for assistance. The training coordinators were also interviewed on the use of the system, Ms. Sharika, an admin assistant from King Saud Bin Abdulaziz University commented over a telephone interview and quoted, "this is a good idea, we hope we have this kind of system in the University". She added that through this system, the trainees would be more responsible in dealing with their rotations and will not blame all the troubles to their coordinators, that trainees will be able to submit and see the status of their training request and would be able to follow it up themselves.

One of the administrative staff at PSCC who answered the survey commented, "It actually helps a lot, there's no need now to print and distribute tens to hundreds of memos, it helps reduce waste of paper and toner. Convenient to all."

System Competency Analysis

Ms. Arwa Al Shammari, an admin staff from the PSCC Academic Affairs recommended adding an option to return the training request when an applicant entered wrong data or submitted incorrect documents.

The following screenshot is the system's interface on PSCC admin's end, where it shows only a 'yes or no' button to indicate whether an application is approved or rejected.

Image 8: PSCC admin's interface

OMDB Home Maintenance Angelica Bonus Cruz

Training Request

Request id: 40164

Name: Omar Abdulrazaq Alhamad **Email:** Omaralhamad121@gmail.com **Mobile:** 0505195875
Sponsor: Ministry of Health **Level:** Resident

TRAINING DURATION:

START DATE: * 10/01/2021 **END DATE:** * 06/03/2021 **REQUIRED ROTATION:** * CARDIAC CARE UNIT (CCU)

REQUIREMENTS:

Request Letter (1 MB) Request Letter-Dr. Omar Alhamad (PSCC).pdf	Residence ID (1 MB) Omar Alhamad ID_2.pdf	SCFHS Acceptance Certificate (1 MB) AcceptanceNotice SCFHS.pdf	Saudi Council (1 MB) خدمة التسجيل المهني.PDF
BLS (1 MB) BLS.pdf	Medical Check (2 MB) meidcal checkup and fit test for OMAR ALHAMAD PSCC.pdf	GPA / Academic Record (1 MB)	Training Objectives (1 MB)

Are the application details correct? YES NO

Reviewed by:

Do you authorize this request? YES NO

Authorized by:

Do you approve this application? YES NO

Approved by:

Security clearance received? YES NO

By:

Generate acceptance letter? YES NO

By:

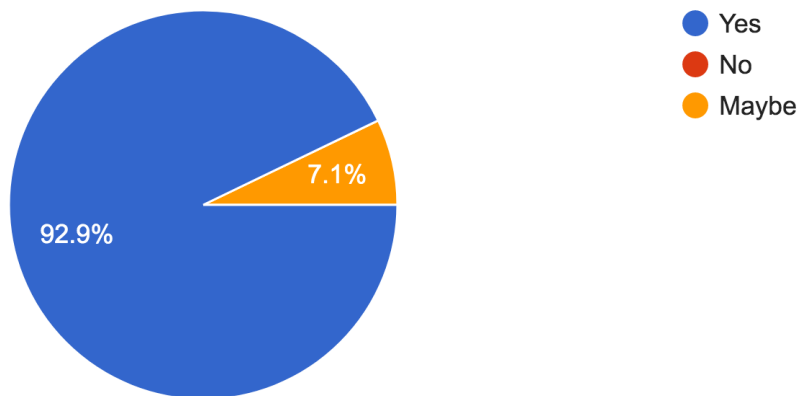
Adding a return application button would be a great addition to this multimedia database, as it will give trainees a chance to correct their submission without PSCC having to reject their application.

Finally, Dr. Tarek Momenah commented that the system is a great innovation to the process of Academic Affairs, he also suggested adding an identity authentication and additional security to the system to ensure that the approver of the request is the only one who could decide on the application. He also had a conversation with the Director of the IT Department to tell them that the system has great potential and benefit for the Academic Affairs. Engr. Yaser Al Kenani, Director of the IT Department, mentioned that they will adopt the system into the PSCC domain and shall update Academic Affairs about its progress.

Conclusion

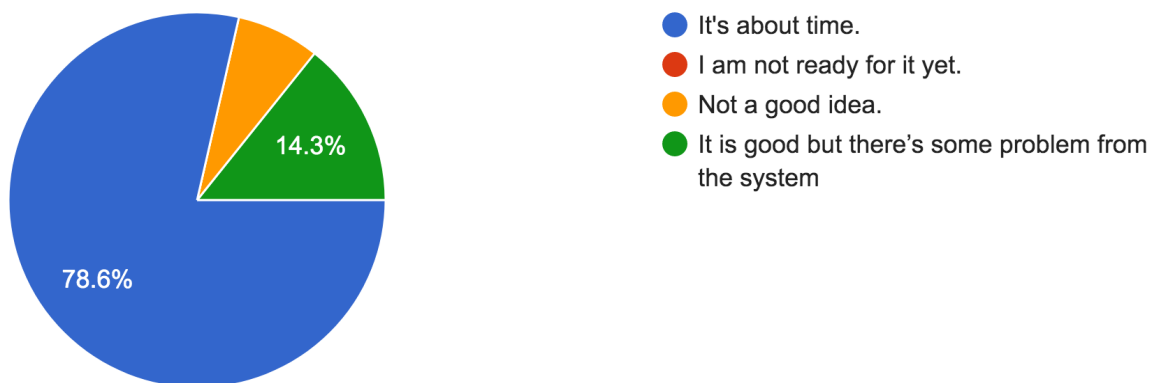
Based on the research and development of the online multimedia database for processing training requests at PSCC, it could be concluded that using and implementing this kind of platform is timely, as it could lessen the paperwork and it could also serve as a unified database for all the PSCC staff who deal with training requests. The validation and testing of the system gained 92.9% support from the overall respondents about its use and implementation. Receiving a high percentage for support to this multimedia database indicates that it can be used as a new training request processing tool.

Figure 6: Percentage of those who support the implementation of the multimedia database



At this time, the multimedia database still requires improvement to better the experience of its users, this is evident in the 78.6% of the subjects who responded that it is about time to use the application, while 14.3% saw the system's potential and its current issues.

Figure 7: Timeliness of using the multimedia database



References

1. Flor, A. (2001). eDevelopment and Knowledge Management: ICT Applications for Sustainable Development. Retrieved September 30, 2020 from <https://ideas.repec.org/b/sag/seatxt/200118.html>
2. Prince Sultan Cardiac Center. (2019). 2018 Annual Report of the Academic and Training Affairs
3. Prince Sultan Cardiac Center. (2020). 2019 Annual Report of the Academic and Training Affairs
4. Prince Sultan Cardiac Center. (2014). About PSCC. Retrieved September 30, 2020 from <https://www.pscclsa.com/En/AboutPSCC/Pages/default.aspx>
5. Alshathri, H. (2019). New ‘Saudiization’ labor initiatives aim to encourage startups. Retrieved 29 October 2020 from <https://www.arabnews.com/node/1448851/saudi-arabia>
6. Hansen, M. (2002). Knowledge Networks: Explaining Effective Knowledge Sharing in Multiunit Companies. *Organization Science*, 13(3), 232-248. Retrieved September 30, 2020 from <http://www.jstor.org/stable/3086019>
7. Grad, B. & Bergin, T. J. (2009). History of Database Management Systems. *IEEE Annals of the History of Computing* 31(4), 3-5. IEEE Computer Society. Retrieved on 23 June 2019 from <https://muse.jhu.edu/article/369213/pdf>
8. Tech-FAQ. (2019). Multimedia Database. Retrieved on 1 August 2019 from <http://www.tech-faq.com/multimedia-database.html>
9. Preedy V.R., Watson R.R. (2010). 5-Point Likert Scale. *Handbook of Disease Burdens and Quality of Life Measures*, retrieved on 25 November 2020 from https://doi.org/10.1007/978-0-387-78665-0_6363
10. Flor, Alexander G. (2002). Digital Tools and Techniques for Process Documentation: Capturing, Storing, and Mining Best Practice and Lessons Learned. SEAMEO Regional Center for Graduate Study and Research in Agriculture, Los Banos, Laguna