**REFERENCES**

1. **Journals**

Ahmed, J., & Rizvi, S. (2020). Exploring the agile software development benefits, challenges, and best practices. Information Systems Management, 37(2), 126-142.

Chen, T. L., Lai, W. C., & Yu, T. K. (2021, January 11). Participating in Online Museum Communities: An Empirical Study of Taiwan’s Undergraduate Students. Frontiers in Psychology, *Volume*11, https//10.3389/fpsyg.2020.565075, ISSN=1664-1078, Retrieved May 11, 2022, from https://www.frontiersin.org/articles/10.3389/fpsyg.2020.565075/full

Chong, C., & Smith, D. (2017). Interactive Learning Units on museum websites. Journal of Museum Education, 42(2), 169–178. https://doi.org/10.1080/10598650.2017.1301626

Custers, M. (2019). Agile development: Benefits and challenges. IEEE Software, 36(2), 74-79.

Gulati, S., & Sharma, R. (2018). Agile software development: Benefits and challenges. International Journal of Production Research, 56(15), 4681-4698.

Li J., Nie J-W, Ye J. (2022) Evaluation of virtual tour in an online museum: Exhibition of Architecture of the Forbidden City: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0261607#sec005>

Lin, M., Chen, H., & Liu, K. (2017). A Study of the Effects of Digital Learning on Learning Motivation and Learning Outcome. *Eurasia journal of mathematics, science and technology education, 13*, 3553-3564.

Madriaga, J. G., Virto, N. R., & Blaso, F. (2017, August). *The influence of museums’ websites on users’ intentions*. Retrieved from ResearchGate:https://www.researchgate.net/publication/318701715\_The\_influence\_of\_museums'\_websites\_on\_users'\_intentions

Kabassi, K. (2017). Evaluating websites of museums: State of the art. Journal of Cultural Heritage, Volume 24 - Pages 184-196.

Schweibenz, Werner. (2019). The virtual museum: an overview of its origins, concepts, and terminology. 4.

Tambahani, G., Wenas, M., & Somya, R. (2016). Perancangan Online Virtual Gallery Dengan Memanfaatkan Teknologi HTML5. AITI, 13(1), 15-30. Retrieved from <https://ejournal.uksw.edu/aiti/article/view/1260>

Walsh, D., Hall, M. H., Clough, P., & Foster, J. (2020). Characterizing online museum users: a study of the National Museums. International Journal on Digital Libraries, 21:75–87.

Z. Liu, M. Wang, S. Qi and C. Yang (2019), Study on the Anti-Theft Technology of Museum Cultural Relics Based on Internet of Things: <https://ieeexplore.ieee.org/document/8788595>

1. **Electronic References**

Albadawi, Bushra Izzat (2021) “The Virtual Museum VM as a Tool for Learning Science in Informal Environment”: <https://dspace.alquds.edu/items/67d230e5-8864-4e74-b8a7-e157c33b1f24/full>

Aldrich, E., Bessette, K., Mueller, P., & Prakash, M. (2016). Evaluating Digital Learning Resources for International Students at the British Museum (Doctoral dissertation, WORCESTER POLYTECHNIC INSTITUTE).

Allen, L. B., & Crawley, K. J. (2013, November 25). *Challenging Beliefs, Practices, and Content: How Museum Educators Change*. Retrieved from Wiley Online Library:https://onlinelibrary.wiley.com/doi/10.1002/sce.21093

Balanchine, S. (2018, September 29). *Museum Marketing Challenges and Solutions in Digital Transformation Era*. Retrieved from Cetrix:https://www.cetrixcloudservices.com/blog/museum-marketing-challenges-and-solutions-in-digital-transformation-era

Billock, J. (2020, September 16). *How Will Covid-19 Change the Way Museums Are Built?* Retrieved from Smithsonian:https://www.smithsonianmag.com/travel/how-will-covid-19-change-way-future-museums-are-built-180975022/

Butler, J. (2017, August 31). *Five takeaways on how museums are adapting to digital age demands*. Retrieved from Knight Foundation:<https://knightfoundation.org/articles/five-takeways-on-how-museums-are-adapting-to-digital-age-demands/>

C. Di Stefano and F. Battisti, "Caravaggio in Rome: A qoe-based proposal for a virtual gallery," *2017 3DTV Conference: The True Vision - Capture, Transmission and Display of 3D Video (3DTV-CON)*, 2017, pp. 1-4, doi: 10.1109/3DTV.2017.8280423.

Charr, M. (2020). *What makes a good museum website?* Retrieved from Museum Next:https://www.museumnext.com/article/what-makes-a-good-museum-website/

Chen, T. L., Lai, W. C., & Yu, T. K. (2021, January 11). Participating in Online Museum Communities: An Empirical Study of Taiwan’s Undergraduate Students. Frontiers in Psychology, Volume11, https//10.3389/fpsyg.2020.565075, ISSN=1664-1078, Retrieved May 11, 2022, from https://www.frontiersin.org/articles/10.3389/fpsyg.2020.565075/full

Cristóbal, E. F., Ramón, J. C., Daries, N., & Serra, A. C. (2021, August 20). Museums in the Digital Age: An Analysis of Online Communication and the Use of E-Commerce. Retrieved from Digital Library: <https://dl.acm.org/doi/abs/10.1145/3464977>

Fernandez, S. L., Crespo, N. T., & Fernández, R. H. (2022, January). Driving traffic to the museum: The role of the digital communication tools. *Volume*174, https://doi.org/10.1016/j.techfore.2021.121273. Retrieved from Science Direct: https://www.sciencedirect.com/science/article/abs/pii/S0040162521007071#!

*History of Flight Booking: CRSs, GDS Distribution, Travel Agencies, and Online Reservations*. (2019, April 12). Retrieved from altexsoft: https://www.altexsoft.com/blog/travel/history-of-flight-booking-crss-gds-distribution-travel-agencies-and-online-reservations/

Khan, A., Abbas, S., Abbas, T., Ali, K., & Zainab, Z. (2021). Benefits of agile methodology in software development. International Journal of Computer Science and Mobile Computing, 10(1), 53-62.

Laura A. Maye, Dominique Bouchard, Gabriela Avram, and Luigina Ciolfi. 2017. r In Proceedings of the 2017 Conference on Designing Interactive Systems (DIS '17). Association for Computing Machinery, New York, NY, USA, 221–232. <https://doi.org/10.1145/3064663.3064753>

[Raimo, N.](https://www.emerald.com/insight/search?q=Nicola%20Raimo), [De Turi, I.](https://www.emerald.com/insight/search?q=Ivano%20De%20Turi), [Ricciardelli, A.](https://www.emerald.com/insight/search?q=Alessandra%20Ricciardelli" \t "_blank) and [Vitolla, F.](https://www.emerald.com/insight/search?q=Filippo%20Vitolla" \t "_blank) (2021), "Digitalization in the cultural industry: evidence from Italian museums", [International Journal of Entrepreneurial Behavior & Research](https://www.emerald.com/insight/publication/issn/1355-2554), Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJEBR-01-2021-0082>

Ruiz, O. O. (2020, June 2). *The 10 “must-have” features of an online booking system*. Retrievedfrombookingkit:https://bookingkit.com/blog/10-must-features-online-booking-system/

Steeves, K. (2020, October 1). *What Exactly Is an Online Booking System?* Retrieved fromcheckfront:https://www.checkfront.com/blog/what-is-an-online-booking-system#:~:text=An%20online%20booking%20system%20is,operation%2C%20all%20in%20one%20place.

*THE HISTORY OF BOOKING SYSTEMS* (2021, September 15).. Retrieved from scandinaviantraveler:https://scandinaviantraveler.com/en/aviation/the-history-of-booking-systems

**Appendix A**

*Letter of Request for Capstone Adviser*

A picture containing arrow

Description automatically generatedA picture containing text, bottle cap, gambling house

Description automatically generated

Bulacan State University

**COLLEGE OF INFORMATION & COMMUNICATIONS**

**TECHNOLOGY**

City of Malolos 3000, Bulacan

Tel. No. (044) 796-0147/(044)791-7386

<http://www.bulsu.edu.ph/>

**MRS. MA. RUBY ANGELA CRISOSTOMO** March 31, 2022

CICT Faculty Member

Bulacan State University

Dear Mrs. Crisostomo:

Greetings!

We, the undersigned, are third year students of Bulacan State University pursuing a degree, Bachelor of Science in Information Technology and currently taking Capstone I subject.

We are writing to humbly request your service and expertise to serve as an adviser for our Capstone project. We believe that your knowledge and insights will be valuable and will greatly enrich our work.

Hoping & praying that you will consider our request. Thank you very much & God bless!

**Respectfully yours,**

The Researchers

**Claro, Sharvien Paul M.**

**Gabutina, Carlo Elijah R.**

**Mauricio, Angelo D.**

**Nacional, Kristine Joy S.**

**Navarro, Rovi Keith Y.**

**Tapang, Jhel Ansel D.**

**Noted by:**

Shape

Description automatically generated with low confidence

**Dr. Mayleen Dorcas B. Castro**

Capstone Coordinator

A picture containing shape

Description automatically generated**Conforme:**

**Mrs. Ma. Ruby Angela Crisostomo**

CICT, Faculty

**Appendix B**

*Letter of Request for Capstone Panel Member*

A picture containing arrow

Description automatically generatedA picture containing text

Description automatically generatedBulacan State University

**COLLEGE OF INFORMATION & COMMUNICATIONS**

**TECHNOLOGY**

City of Malolos 3000, Bulacan

Tel. No. (044) 796-0147/(044)791-7386

<http://www.bulsu.edu.ph/>



**MS. LILIBETH ANTONIO**  April 4, 2022

CICT Faculty Member

Bulacan State University

Dear Ms. Antonio:

Greetings!

We, the undersigned, are third year students of Bulacan State University pursuing a degree, Bachelor of Science in Information Technology and currently taking Capstone I subject.

We are writing to humbly request your service and expertise to serve as one of our panel members for our Capstone project Title Oral Presentation. We believe that your knowledge and insights will be valuable and will greatly enrich our work.

Hoping & praying that you will consider our request. Thank you very much & God bless!

**Respectfully yours,**

The Researchers

**Claro, Sharvien Paul**

**Gabutina, Carlo Elijah**

**Mauricio, Angelo**

**Nacional, Kristine Joy**

**Navarro, Rovi Keith**

**Tapang, Jhel Ansel**

**Noted by:**



**Dr. Mayleen Dorcas B. Castro**

Capstone Coordinator

Text, whiteboard

Description automatically generated**Conforme:**

**Ms. Lilibeth Antonio**

CICT, Faculty

A picture containing arrow

Description automatically generatedA picture containing text

Description automatically generatedBulacan State University

**COLLEGE OF INFORMATION & COMMUNICATIONS**

**TECHNOLOGY**

City of Malolos 3000, Bulacan

Tel. No. (044) 796-0147/(044)791-7386

<http://www.bulsu.edu.ph/>



**ENGR. TERESITA MANGAHAS**  April 4, 2022

CICT Faculty Member

Bulacan State University

Dear Engr. Mangahas:

Greetings!

We, the undersigned, are third year students of Bulacan State University pursuing a degree, Bachelor of Science in Information Technology and currently taking Capstone I subject.

We are writing to humbly request your service and expertise to serve as one of our panel members for our Capstone project Title Oral Presentation. We believe that your knowledge and insights will be valuable and will greatly enrich our work.

Hoping & praying that you will consider our request. Thank you very much & God bless!

**Respectfully yours,**

The Researchers

**Claro, Sharvien Paul**

**Gabutina, Carlo Elijah**

**Mauricio, Angelo**

**Nacional, Kristine Joy**

**Navarro, Rovi Keith**

**Tapang, Jhel Ansel**

**Noted by:**



**Dr. Mayleen Dorcas B. Castro**

Capstone Coordinator

****

**Conforme:**

**Engr. Teresita Mangahas**

CICT, Faculty

A picture containing arrow

Description automatically generatedA picture containing text

Description automatically generatedBulacan State University

**COLLEGE OF INFORMATION & COMMUNICATIONS**

**TECHNOLOGY**

City of Malolos 3000, Bulacan

Tel. No. (044) 796-0147/(044)791-7386

<http://www.bulsu.edu.ph/>



**MS. LYKA SAN PEDRO** April 4, 2022

CICT Faculty Member

Bulacan State University

Dear Ms. San Pedro:

Greetings!

We, the undersigned, are third year students of Bulacan State University pursuing a degree, Bachelor of Science in Information Technology and currently taking Capstone I subject.

We are writing to humbly request your service and expertise to serve as one of our panel members for our Capstone project Title Oral Presentation. We believe that your knowledge and insights will be valuable and will greatly enrich our work.

Hoping & praying that you will consider our request. Thank you very much & God bless!

**Respectfully yours,**

The Researchers

**Claro, Sharvien Paul**

**Gabutina, Carlo Elijah**

**Mauricio, Angelo**

**Nacional, Kristine Joy**

**Navarro, Rovi Keith**

**Tapang, Jhel Ansel**

**Noted by:**



**Dr. Mayleen Dorcas B. Castro**

Capstone Coordinator

A picture containing text

Description automatically generated

**Conforme:**

**Ms. Lyka San Pedro**

CICT, Faculty

**Appendix C**

*Letter of Invitation for Proposal Presentation*

Text

Description automatically generated

**BULACAN STATE UNIVERSITY**

**College of Information and Communications Technology**

**Guinhawa, City of Malolos, Bulacan**

<http://www.bulsu.edu.ph/>

May 19, 2022

MS. MA. RUBY ANGELA J. CRISOSTOMO

Faculty Member, CICT

BuLSU

Dear Ms. Crisostomo,

Greetings!

This is to inform you of the schedule for the Capstone Project Proposal Oral Presentation for the BS Information Technology Third Year Students that will be conducted on **June 2, 2022** via the MS Teams Meet platform.

In line with this, I’d like to notify you of the group which you are concerned with:

**Capstone Title :** VirtualShrine: An Interactive Museum Website for Casa Real Shrine

**Researchers :** Claro, Sharvien Paul M., Gabutina, Carlo Elijah R., Mauricio, Angelo D., Nacional, Kristine Joy S., Navarro, Rovi Keith Y., Tapang, Jhel Ansel D.

**Time :** 10:00 – 11:00 AM

**Invitation :** ( ✓ ) As Adviser ( ) As Critic/Member

( ) As Panel Chairman () As Client

It is expected that you come on time and be present during the whole duration of the presentation. Hoping for your usual support and cooperation in this endeavor!

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

***Conforme:***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**BULACAN STATE UNIVERSITY**

**College of Information and Communications Technology**

**Guinhawa, City of Malolos, Bulacan**

<http://www.bulsu.edu.ph/>

May 19, 2022

MS. LILIBETH ANTONIO

Faculty Member, CICT

BuLSU

Dear Ms. Antonio,

Greetings!

This is to inform you of the schedule for the Capstone Project Proposal Oral Presentation for the BS Information Technology Third Year Students that will be conducted on **June 2, 2022,** via the MS Teams Meet platform.

In line with this, I’d like to notify you of the group which you are concerned with:

**Capstone Title :** VirtualShrine: An Interactive Museum Website for Casa Real Shrine

**Researchers :** Claro, Sharvien Paul M., Gabutina, Carlo Elijah R., Mauricio, Angelo D., Nacional, Kristine Joy S., Navarro, Rovi Keith Y., Tapang, Jhel Ansel D.

**Time :** 10:00 – 11:00 AM

**Invitation :** ( ) As Adviser ( ) As Critic/Member

( ✓ ) As Panel Chairman () As Client

It is expected that you come on time and be present during the whole duration of the presentation. Hoping for your usual support and cooperation in this endeavor!

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

***Conforme:***

Text, whiteboard

Description automatically generated

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Text

Description automatically generated

Text

Description automatically generated

**BULACAN STATE UNIVERSITY**

**College of Information and Communications Technology**

**Guinhawa, City of Malolos, Bulacan**

<http://www.bulsu.edu.ph/>

May 19, 2022

ENGR. TERESITA MANGAHAS

Faculty Member, CICT

BuLSU

Dear Engr. Mangahas,

Greetings!

This is to inform you of the schedule for the Capstone Project Proposal Oral Presentation for the BS Information Technology Third Year Students that will be conducted on **June 2, 2022** via the MS Teams Meet platform.

In line with this, I’d like to notify you of the group which you are concerned with:

**Capstone Title :** VirtualShrine: An Interactive Museum Website for Casa Real Shrine

**Researchers :** Claro, Sharvien Paul M., Gabutina, Carlo Elijah R., Mauricio, Angelo D., Nacional, Kristine Joy S., Navarro, Rovi Keith Y., Tapang, Jhel Ansel D.

**Time :** 10:00 – 11:00 AM

**Invitation :** ( ) As Adviser (✓) As Critic/Member

( ) As Panel Chairman () As Client

It is expected that you come on time and be present during the whole duration of the presentation. Hoping for your usual support and cooperation in this endeavor!

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

***Conforme:***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Text

Description automatically generated

**BULACAN STATE UNIVERSITY**

**College of Information and Communications Technology**

**Guinhawa, City of Malolos, Bulacan**

<http://www.bulsu.edu.ph/>

May 19, 2022

MS. LYKA SAN PEDRO

Faculty Member, CICT

BuLSU

Dear Ms. San Pedro,

Greetings!

This is to inform you of the schedule for the Capstone Project Proposal Oral Presentation for the BS Information Technology Third Year Students that will be conducted on **June 2, 2022** via the MS Teams Meet platform.

In line with this, I’d like to notify you of the group which you are concerned with:

**Capstone Title :** VirtualShrine: An Interactive Museum Website for Casa Real Shrine

**Researchers :** Claro, Sharvien Paul M., Gabutina, Carlo Elijah R., Mauricio, Angelo D., Nacional, Kristine Joy S., Navarro, Rovi Keith Y., Tapang, Jhel Ansel D.

**Time :** 10:00 – 11:00 AM

**Invitation :** ( ) As Adviser (✓) As Critic/Member

( ) As Panel Chairman () As Client

It is expected that you come on time and be present during the whole duration of the presentation. Hoping for your usual support and cooperation in this endeavor!

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

A picture containing text

Description automatically generated***Conforme:***

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendix D**

*Letter for Client*



Republic of the Philippines

Bulacan State University

##### City of Malolos, Bulacan

##### Tel (044) 919 7800 local 1101/1102

##### 

**COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY**

May 16, 2022

**MRS. MA. ANTONIA T. JIMENEZ**

Museum Curator

Casa Real Shrine

Dear Mrs. Jimenez:

Greetings!

We are 3rd-year college students from Bulacan State University taking up the course of Bachelor of Science in Information Technology. We've decided to design a website for our capstone project a VirtualShrine: An Interactive Museum website for Casa Real Shrine that will be utilized to virtualize Casa Real Shrine. As for that, we are asking for your permission to be our client on this project.

           The concept of our proposed system is to deliver more knowledge to the online museum user by improving users’ experience, interactivity, and comprehensive knowledge. This proposed project website could also serve as promotion for the Casa Real Shrine of Malolos to a vast audience online.

This system can help you on:

* Promote the Casa Real Shrine on a wider audience online.
* Online Booking Admission
* User Assisting features
* Virtual Museum tours

Students will use the information provided above for educational purposes only. We are hoping for your kind consideration and favorable response. Thank you, and God bless!

**Respectfully yours,**

**The Researchers**

**Claro, Sharvien Paul M.**

**Gabutina, Carlo Elijah R.**

**Mauricio, Angelo D.**

**Navarro, Rovi Keith Y.**

**Tapang, Jhel Ansel D.**

**Nacional, Kristine Joy S.**

Project Leader

BSIT 3M – Group 2

**Noted by:**

**Dr. Mayleen Dorcas Castro**

Capstone Coordinator

**Conforme:**

**Mrs. Ma. Antonia T. Jimenez**

Museum Curator

**Text, letter

Description automatically generated**

A picture containing arrow

Description automatically generatedA picture containing text, bottle cap, gambling house

Description automatically generatedBulacan State University

**COLLEGE OF INFORMATION & COMMUNICATIONS**

**TECHNOLOGY**

City of Malolos 3000, Bulacan

Tel. No. (044) 796-0147/(044)791-7386

<http://www.bulsu.edu.ph/>

July 7, 2022

**MRS. MA. ANTONIA T. JIMENEZ**

Museum Curator

Casa Real Shrine

Dear Mrs. Jimenez:

Greetings!

This letter is in regard to requesting for Data collection such as images, description, and 360-degree view of the artifacts displayed in your museum. We are 3rd-year college students from Bulacan State University taking up the course of Bachelor of Science in Information Technology conducting a study entitled “VirtualShrine: an interactive website for Casa Real Shrine”.

As part of the study's development, we will photograph the artifacts on display at the museum and capture a 360-degree view of each gallery. We would also want to request a description of the artifacts that are on display.

The intention of our work is to use those data as contents for the interactive museum website for Casa Real Shrine and be able to share the collected data to the museum website visitors.

We will be very grateful to you for your help. We can assure you that your privacy will not be affected.

If you have any further queries, you can reach us at virtualshrine.developers@gmail.com

**Respectfully yours,**

**The Researchers**

**Claro, Sharvien Paul M.**

**Gabutina, Carlo Elijah R.**

**Mauricio, Angelo D.**

**Navarro, Rovi Keith Y.**

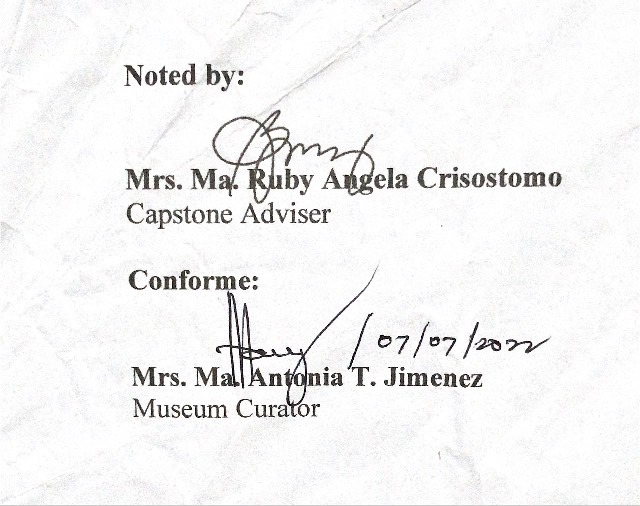
**Tapang, Jhel Ansel D.**

**Nacional, Kristine Joy S.**

Project Leader

BSIT 3M – Group 2

**Noted by:**



**Mrs. Ma. Ruby Angela Crisostomo**

Capstone Adviser

**Conforme:**

**Mrs. Ma. Antonia T. Jimenez**

Museum Curator

**Appendix E**

*Letter for Invitation for Final Capstone Defense*

A picture containing text, watch, clock

Description automatically generatedA picture containing text, sign, orange

Description automatically generatedRepublic of the Philippines

BULACAN STATE UNIVERSITY

**College of Information and Communications Technology**

City of Malolos, Bulacan

December 11, 2022

**MS. MA. RUBY ANGELA J. CRISOSTOMO**

CICT, Faculty

Dear Ms. Crisostomo,

Greetings!

This is to inform you of the Capstone Project Final and Oral Presentation for BS Information Technology Fourth Year Students will be on **December 14, 2022,** at the ILCA Office, Ground Floor of Federizo Hall.

In line with this, I’d like to notify you of the schedule which you are concerned with:

VirtualShrine: An Interactive Museum Website for Casa Real Shrine

Capstone Title :

Claro, Sharvien Paul M., Gabutina, Carlo Elijah R.**,** Mauricio, Angelo D.**,** Mergal, Jhan Mar D.**,** Nacional, Kristine Joy S.**,** Navarro, Rovi Keith Y.**,** Tapang, Jhel Ansel D.

Proponents/ :

Researchers

Time : **10:00 – 11:00 am**

Invitation : ( **✓**) As Adviser () As Panel Chairman () As Member

It is expected that you will come on time and be present during the whole duration of the presentation.

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

Noted by:

**DIGNA S. EVALE, DIT KENO C. PIAD, DIT**

Head, BSIT Program College Dean

****

Conforme:

**Ms. Ma. Ruby Angela J. Crisostomo**

CICT, Faculty

A picture containing text, watch, clock

Description automatically generatedA picture containing text, sign, orange

Description automatically generatedRepublic of the Philippines

BULACAN STATE UNIVERSITY

**College of Information and Communications Technology**

City of Malolos, Bulacan

December 11, 2022

**MS. LILIBETH G. ANTONIO**

CICT, Faculty

Dear Ms. Antonio,

Greetings!

This is to inform you of the Capstone Project Final and Oral Presentation for BS Information Technology Fourth Year Students will be on **December 14, 2022,** at the ILCA Office, Ground Floor of Federizo Hall.

In line with this, I’d like to notify you of the schedule which you are concerned with:

VirtualShrine: An Interactive Museum Website for Casa Real Shrine

Capstone Title :

Claro, Sharvien Paul M., Gabutina, Carlo Elijah R.**,** Mauricio, Angelo D.**,** Mergal, Jhan Mar D.**,** Nacional, Kristine Joy S.**,** Navarro, Rovi Keith Y.**,** Tapang, Jhel Ansel D.

Proponents/ :

Researchers

Time : **10:00 – 11:00 am**

Invitation : ( ) As Adviser (**✓**) As Panel Chairman () As Member

It is expected that you will come on time and be present during the whole duration of the presentation.

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

Noted by:

**DIGNA S. EVALE, DIT KENO C. PIAD, DIT**

Head, BSIT Program College Dean

Text, whiteboard

Description automatically generatedConforme:

**MS. Lilibeth G. Antonio**

CICT, Faculty

A picture containing text, watch, clock

Description automatically generatedA picture containing text, sign, orange

Description automatically generatedRepublic of the Philippines

BULACAN STATE UNIVERSITY

**College of Information and Communications Technology**

City of Malolos, Bulacan

December 11, 2022

**ENGR. TERESITA S. MANGAHAS**

CICT, Faculty

Dear Engr. Mangahas,

Greetings!

This is to inform you of the Capstone Project Final and Oral Presentation for BS Information Technology Fourth Year Students will be on **December 14, 2022,** at the ILCA Office, Ground Floor of Federizo Hall.

In line with this, I’d like to notify you of the schedule which you are concerned with:

VirtualShrine: An Interactive Museum Website for Casa Real Shrine

Capstone Title :

Claro, Sharvien Paul M., Gabutina, Carlo Elijah R.**,** Mauricio, Angelo D.**,** Mergal, Jhan Mar D.**,** Nacional, Kristine Joy S.**,** Navarro, Rovi Keith Y.**,** Tapang, Jhel Ansel D.

Proponents/ :

Researchers

Time : **10:00 – 11:00 am**

Invitation : ( ) As Adviser () As Panel Chairman (**✓**) As Member

It is expected that you will come on time and be present during the whole duration of the presentation.

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

Noted by:

**DIGNA S. EVALE, DIT KENO C. PIAD, DIT**

Head, BSIT Program College Dean

****

Conforme:

**Engr. Teresita S. Mangahas**

CICT, Faculty

A picture containing text, watch, clock

Description automatically generatedA picture containing text, sign, orange

Description automatically generatedRepublic of the Philippines

BULACAN STATE UNIVERSITY

**College of Information and Communications Technology**

City of Malolos, Bulacan

December 11, 2022

**MS. LYKA D.L SAN PEDRO**

CICT, Faculty

Dear Ms. San Pedro,

Greetings!

This is to inform you of the Capstone Project Final and Oral Presentation for BS Information Technology Fourth Year Students will be on **December 14, 2022,** at the ILCA Office, Ground Floor of Federizo Hall.

In line with this, I’d like to notify you of the schedule which you are concerned with:

VirtualShrine: An Interactive Museum Website for Casa Real Shrine

Capstone Title :

Claro, Sharvien Paul M., Gabutina, Carlo Elijah R.**,** Mauricio, Angelo D.**,** Mergal, Jhan Mar D.**,** Nacional, Kristine Joy S.**,** Navarro, Rovi Keith Y.**,** Tapang, Jhel Ansel D.

Proponents/ :

Researchers

Time : **10:00 – 11:00 am**

Invitation : ( ) As Adviser () As Panel Chairman (**✓**) As Member

It is expected that you will come on time and be present during the whole duration of the presentation.

Thank you,

Shape

Description automatically generated with low confidence

**MAYLEEN DORCAS B. CASTRO, DIT**

Capstone Project Coordinator

Noted by:

**DIGNA S. EVALE, DIT KENO C. PIAD, DIT**

Head, BSIT Program College Dean

A picture containing text

Description automatically generated

Conforme:

**Ms. Lyka D.L San Pedro**

CICT, Faculty

**Appendix F**

*PANEL REPORT*

**Appendix G**

*Evaluation Criteria for Software*

A picture containing text, sign, orange

Description automatically generatedA picture containing text, watch, clock

Description automatically generatedRepublic of the Philippines

BULACAN STATE UNIVERSITY

**College of Information and Communications Technology**

City of Malolos, Bulacan

*(Adapted from Product Software Quality – ISO/IEC 25010)*

1. **Evaluator’s Profile**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Course/Occupation/Position:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Software Evaluation**

**Instruction:**

Good day! We are 4th-Year BSIT Major in Web Development students from Bulacan State University - Main Campus, conducting capstone project entitled **"VIRTUALSHRINE: An Interactive Museum Website for Casa Real Shrine"**.

In this regard, please evaluate the developed application by using the given scale below and placing a checkmark (√) under its corresponding numeric rating.

|  |  |  |
| --- | --- | --- |
| **Scale** | **Range** | **Descriptive Interpretation** |
| 5 | 4.60 - 5.00 | Excellent |
| 4 | 3.60 - 4.59 | Very Good |
| 3 | 2.60 - 3.59 | Satisfactory |
| 2 | 1.60 - 2.59 | Fair |
| 1 | 0 - 1.59 | Poor |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Indicator** | **5** | **4** | **3** | **2** | **1** |
| 1. **Function and Stability** |  |  |  |  |  |
| 1. The system functions according to its intended purpose. |  |  |  |  |  |
| 1. The system gives the exact output on each input per module. |  |  |  |  |  |
| 1. The system functions like any standard system entirely |  |  |  |  |  |
| 1. The system functions to different user with different restrict ions. |  |  |  |  |  |
| 1. The system interacts to different inputs and features entirely. |  |  |  |  |  |
| 1. **Performance and Efficiency** |  |  |  |  |  |
| 1. The system meets the user’s expectation and objectives. |  |  |  |  |  |
| 1. The system can be used to its maximum limit from the design capacity. |  |  |  |  |  |
| 1. The system can respond to multiple interaction from the user. |  |  |  |  |  |
| 1. The system manages time efficiently and effectively. |  |  |  |  |  |
| 1. The system accurately presents the output at the maximum level. |  |  |  |  |  |
| 1. **Compatibility** |  |  |  |  |  |
| 1. Co-Existence. The system can efficiently perform its required functions while sharing a familiar environment and resources with other systems, with no negative influence on any other method. |  |  |  |  |  |
| 1. Interoperability. The system can exchange information and utilize data that has been exchanged between two or more platforms. |  |  |  |  |  |
| 1. The system can be accessed on both phone and computer browsers. |  |  |  |  |  |
| 1. **Usability** |  |  |  |  |  |
| 1. User friendly. The design of the system is easy to understand and use. |  |  |  |  |  |
| 1. Acceptability Recognizability. Users are able to determine whether the system is suitable for their requirements. |  |  |  |  |  |
| 1. System Utility. The system can generate reports that can be viewed online (and can be download). |  |  |  |  |  |
| 1. Operability. The system is simple to use, navigate. |  |  |  |  |  |
| 1. **Reliability** |  |  |  |  |  |
| 1. Maturity. Under normal conditions, the system meets the requirements for reliability. |  |  |  |  |  |
| 1. Availability. The system is operational and accessible when required for use. |  |  |  |  |  |
| 1. Fault Tolerance. Despite the presence of hardware or software faults, the system or its components function as planned. |  |  |  |  |  |
| 1. Recoverability. In an interruption or failure, the system can immediately recover the affected data and restore the system to its desired state. |  |  |  |  |  |
| 1. **Security** |  |  |  |  |  |
| 1. Confidentiality. The system guarantees that the data is only available to those granted access. |  |  |  |  |  |
| 1. Confidentiality. The system guarantees that the data is only available to those granted access. |  |  |  |  |  |
| 1. Accountability. The actions of an entity can be traced uniquely by the system to the entity. |  |  |  |  |  |
| 1. **Maintainability** |  |  |  |  |  |
| 1. The system’s information and interfaces can be updated through administrator account. |  |  |  |  |  |
| 1. The system allows updating different user records through level of security. |  |  |  |  |  |
| 1. The system username and password can be modified online. |  |  |  |  |  |
| 1. The system’s hierarchy of authority especially administrator and super administrator can monitor different user’s account online. |  |  |  |  |  |
| 1. **Portability** |  |  |  |  |  |
| 1. Adaptability. The system can effectively and efficiently be adapted for different evolving hardware, software, or other operational or usage environments. |  |  |  |  |  |

**Comments/Suggestions:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendix H**

*Relevant Source Code*

CLIENT SIDE - homepage.php

<!DOCTYPE html>

<html>

<meta name="viewport" content="with=device-width, initial-scale=1.0">

<head>

<title>Homepage - VirtualShrine</title>

<link rel="stylesheet" href="assets/css/homepage.css">

<link rel="preconnect" href="https://fonts.googleapis.com">

<link rel="icon" type="image/png" href="assets/img/crs-logo.png">

<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.0/css/all.min.css">

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.css">

<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.6.1/jquery.min.js" charset="utf-8"></script>

<link href="https://fonts.googleapis.com/css2?family=Poppins:wght@100;200;300;400;600;700&display=swap" rel="stylesheet">

</head>

<body>

<!-- push -->

<section class="header">

<nav>

<a href="homepage.php"><image class="logo" src="assets/img/crs-logo-white.png" alt="Casa Real Shrine logo"></image></a>

<div class="nav-links" id="mySidebar">

<i class="fa fa-times" onclick="closeNav()"></i>

<ul>

<li class="menu-item"><a href="homepage.php">HOME</a></li>

<li class="menu-item">

<a href="#">VISIT <i class="fas fa-angle-down"></i></a>

<ul class="sub-menu">

<li class="sub-item"><a href="plan\_visit.php">Plan Your Visit</a></li>

<li class="sub-item"><a href="consent-form.php">Book a Visit</a></li>

<li class="sub-item"><a href="audio-guide.php">Audio Guide</a></li>

<li class="sub-item"><a href="exhibits.php">Exhibits</a></li>

</ul>

</li>

<li class="menu-item">

<a href="#">EXPLORE<i class="fas fa-angle-down"></i></a>

<ul class="sub-menu">

<li class="sub-item"><a href="gallery.php">Collections</a></li>

<li class="sub-item"><a href="virtual-tour.php">Virtual Tour</a></li>

</ul>

</li>

<li class="menu-item"><a href="blog.php">BLOG</a></li>

<li class="menu-item"><a href="about-crs.php">ABOUT</a></li>

</ul>

</div>

<div id="main"></div>

<i class="fa fa-bars" onclick="openNav()"></i>

</div>

</nav>

<!-- [END] NAVIGATION -->

<!-- [START] HEADER -->

<div class="text-box">

<h1>WELCOME TO THE VIRTUALSHRINE</h1>

<p>Free Entry - Operation time : 8:00AM - 4:00PM</p>

<a class="book-btn" href="consent-form.php">Book a Visit Now</a>

</div>

<!-- [END] OF HEADER -->

</section>

<!-- [START] STARTING PAGE -->

<section class="content-split">

<h1>ABOUT CASA REAL SHRINE</h1>

<div class="content-wrap">

<div class="content-split-side rich-text">

<div class="carousel">

<div class="carousel-inner">

<div class="carousel-item">

<img src="Images/about/history-of-casa-real-shrine.jpg" alt="">

</div>

<div class="carousel-item">

<img src="Images/about/women-of-malolos.jpg" alt="">

</div>

<div class="carousel-item">

<img src="Images/about/crs-printing-press.jpg" alt="">

</div>

<div class="carousel-item">

<img src="Images/about/thumb2.jpg" alt="">

</div>

</div>

<div class="carousel-controls">

<span class="prev"></span>

<span class="next"></span>

</div>

<div class="carousel-indicators"></div>

</div>

</div>

<div class="content-split-main rich-text">

<p class="about-desc">Located at Paseo del Congreso, Plaza Rizal Malolos Bulacan, Casa Real Shrine served as the

National Museum and the National Printing Press during the First Philippine Republic. It

is a government museum consisting of relics from the First Philippine Republic.

Memorabilia's of Gen. Emilio Aguinaldo are also found here. First class families of Malolos,

their furnitures, old books, stamps, paper money and coin are also displayed in the Shrine.</p>

<p class="about-desc-2">Casa Real is also one of Malolos oldest structure. The building contains

exhibits, printing press of the Malolos Republic and a display of the 21 Women of Malolos

memorabilia. Also presented here are the photographs of the 100 Filipino women. Each of them has

distinct characteristics in their fields.</p>

<a href="about-crs.php"><button class="button-31" role="button">Learn More</button></a>

</div>

</div>

</section>

<!-- [END] STARTING PAGE -->

<!-- [START] HOMEPAGE CONTENTS -->

<section class="home-content">

<h1>Explore Our Galleries</h1>

<p>Tour the 5 galleries of Casa Real Shrine</p>

<div class="row">

<a href="GalleryInfo.php">

<div class="gallery-col">

<img src="Images/homepage-gallery/ginhawa.jpg" alt="kaginhawaan">

<div class="layer">

<h3>KAGINHAWAAN</h3>

</div>

</div>

</a>

<a href="GalleryInfo.php">

<div class="gallery-col">

<img src="Images/homepage-gallery/paniil.jpg" alt="kaginhawaan">

<div class="layer">

<h3>PANINIIL</h3>

</div>

</div>

</a>

<a href="GalleryInfo.php">

<div class="gallery-col">

<img src="Images/homepage-gallery/bago-puri.jpg" alt="kaginhawaan">

<div class="layer">

<h3>PAGBABAGONG-PURI</h3>

</div>

</div>

</a>

<a href="GalleryInfo.php">

<div class="gallery-col">

<img src="Images/homepage-gallery/buo.jpg" alt="kaginhawaan">

<div class="layer">

<h3>PAGBUBUO NG BAYAN</h3>

</div>

</div>

</a>

</div>

</section>

<!-- [END] OF HOMEPAGE CONTENTS -->

<!-- [START] VIRTUALSHRINE NEXT TO YOU -->

<section class="vs-features">

<h1>VIRTUALSHRINE NEXT TO YOU</h1>

<p>Explore our virtual tours and experience the Casa Real wherever you are</p>

<div class="row">

<div class="features-col">

<a href="audio-guide.php">

<div id="container">

<img id="image" src="Images/homepage-features/image1.jpg" alt="">

</div>

</a>

<div class="card-title">

<h3>Audio Guide</h3>

<p>Explore Casa Real with an Audio Guide</p>

</div>

</div>

<div class="features-col">

<a href="virtual-tour.php">

<div id="container">

<img id="image" src="Images/homepage-features/image2.JPG" alt="">

</div>

</a>

<div class="card-title">

<h3>Virtual 360</h3>

<p>Check out the virtual 360 tour of the Casa Real Shrine</p>

</div>

</div>

<div class="features-col">

<a href="gallery.php">

<div id="container">

<img id="image" src="Images/homepage-features/image3.jpg" alt="">

</div>

</a>

<div class="card-title">

<h3>Collections</h3>

<p>Learn the political history of the Phillipines by visiting the collections of Casa Real Shrine</p>

</div>

</div></div>

</div>

</section>

<!-- [END] OF VIRTUALSHRINE NEXT TO YOU-->

<!-- [START] FOOTER -->

<section id="footer">

<div class="title-text">

<!-- <h1>Visit Casa Real Today</h1> -->

</div>

<div class="footer-row">

<div class="footer-left">

<div>

<h1>Opening Hours</h1>

<p><i class="fa fa-clock-o"></i> Tuesday to Sunday - 8:00 AM to 4:00 PM</p>

</div>

<br>

<div>

<h1>Contact Us</h1>

<p><i class="fa fa-map-marker"></i> Paseo Del Congreso, Liang, City of Malolos, Bulacan</p>

<p><i class="fa fa-paper-plane"></i> mpph@nhcp.gov.ph</p>

<p><i class="fa fa-phone"></i> (044) 931-2508</p>

</div>

</div>

<div class="footer-right">

<div>

<h1>Quicklinks</h1>

<div class="quicklinks">

<span style="margin-right:50px;"><a href="homepage.php">Homepage</a></span><a href="crs-about.php">About Us</a><br>

<span style="margin-right:30px;"><a href="plan\_visit.php">Plan Your Visit</a></span><a href="consent-form.php">Book a Visit</a><br>

<span style="margin-right:70px;"><a href="audio-guide.php">Audio Guide</a></span><a href="exhibits.php">Exhibit</a><br>

<span style="margin-right:30px;"><a href="gallery.php">Collection</a></span><a href="virtual-tour.php">Virtual Tour</a><br>

<span><a href="">About</a></span>

</div>

</div>

</div>

</div>

<div class="social-links">

<img src="Images/Logo.png" class="footer-img">

<a href="https://www.facebook.com/CasaRealMalolos"><i class="fa fa-facebook"></i></a>

<a href="https://www.instagram.com/nhcpofficial/"><i class="fa fa-instagram"></i></a>

<a href="https://twitter.com/NHCPOfficial"><i class="fa fa-twitter"></i></a>

<a href="https://www.youtube.com/@NHCPOfficial"><i class="fa fa-youtube-play"></i></a>

<p>2022 <i class="fa-regular fa-copyright"></i> VirtualShrine</p>

</div>

</section>

<!-- [END] FOOTER -->

<!-- JAVASCRIPT FOR TOGGLE MENU -->

<script>

/\* Set the width of the sidebar to 250px and the left margin of the page content to 250px \*/

function openNav() {

document.getElementById("mySidebar").style.width = "250px";

}

/\* Set the width of the sidebar to 0 and the left margin of the page content to 0 \*/

function closeNav() {

document.getElementById("mySidebar").style.width = "0";

}

</script>

<script src="assets/js/swiper-script.js"></script>

</body>

</html>

ADMIN SIDE – login.php

<?php

session\_start();

?>

<html>

<head>

<title>Login - VirtualShrine</title>

<meta name="MobileOptimized" content="width">

<meta name="HandheldFriendly" content="true">

<meta name="viewport" content="width=device-width, minimum-scale=1.0, maximum-scale=1.0, user-scalable=no">

<link rel="icon" type="image/png" href="image/VirtualShrineLogo.png">

<link rel="stylesheet" href="assets/css/login-style.css">

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.0/css/all.min.css">

<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.6.1/jquery.min.js" charset="utf-8"></script>

</head>

<div class="py5">

<div class="container">

<div class="row justify-content-center">

<div class="col-md-5">

<div class="card">

<div class="card-header">

<img src="image/VirtualShrineLogo.png">

<div class="center">

<div class="center-header">

<h1>Login</h1>

</div>

<hr>

<div class="center-body">

<?php include('message.php')?>

<form action="logincode.php" method="post">

<div class="txt\_field">

<input type="username" required name="username">

<label>Username</label>

</div>

<div class="txt\_field">

<input type="password" required name="password">

<span></span>

<label>Password</label>

</div>

<input type="submit" name="login\_btn" class="btn btn-primary" value="Login"></input>

<div class="MainAdmin\_link"></div>

</form>

</div>

</div>

</div>

</div>

</div>

</div>

</div>

</div>

<!-- Modal

<div class="modal fade" id="no-slot" tabindex="-1" role="dialog" aria-labelledby="exampleModalLabel" aria-hidden="true">

<div class="modal-dialog" role="document">

<div class="modal-content">

<div class="modal-body" id="loading-msg">

</div>

<div class="modal-footer">

<button type="button" class="btn btn-secondary" data-dismiss="modal">Ok</button>

</div>

</div>

</div>

</div>

<script src="assets/js/main.js?v1"></script>

<script src="assets/js/parsely.min.js"></script>

<script src="assets/js/popper.min.js"></script>

<script src="assets/js/bootstrap.min.js"></script> -->

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>

</body>

</html>

Virtual Tours – index.html

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html;charset=UTF-8" />

<meta http-equiv="X-UA-Compatible" content="IE=edge" />

<title>Virtual Tour - VirtualShrine</title>

<link rel="icon" type="image/png" href="img/crs-logo.png">

<meta name="viewport" content="width=device-width, initial-scale=1.0, minimum-scale=1.0, maximum-scale=1.0" />

<meta name="apple-mobile-web-app-capable" content="yes" />

<meta name="apple-mobile-web-app-status-bar-style" content="black" />

<meta name="mobile-web-app-capable" content="yes" />

<style type="text/css" title="Default">

/\* fullscreen \*/

html {

height:100%;

}

body {

height:100%;

margin: 0px;

overflow:hidden; /\* disable scrollbars \*/

-webkit-tap-highlight-color: rgba(0, 0, 0, 0); /\* remove highlight on tab for iOS/Android \*/

}

/\* fix for scroll bars on webkit & >=Mac OS X Lion \*/

::-webkit-scrollbar {

background-color: rgba(0,0,0,0.5);

width: 0.75em;

}

::-webkit-scrollbar-thumb {

background-color: rgba(255,255,255,0.5);

}

</style>

</head>

<body>

<!-- - - - - - - 8<- - - - - - cut here - - - - - 8<- - - - - - - -->

<script type="text/javascript" src="pano2vr\_player.js">

</script>

<script type="text/javascript" src="skin.js">

</script>

<div id="container" style="width:100%;height:100%;overflow:hidden;">

<br>Loading...<br><br>

</div>

<script type="text/javascript">

// create the panorama player with the container

pano=new pano2vrPlayer("container");

// add the skin object

skin=new pano2vrSkin(pano);

// load the configuration

window.addEventListener("load", function() {

pano.readConfigUrlAsync("pano.xml");

});

if (window.navigator.userAgent.match(/Safari/i)) {

// fix for white borders, rotation on iPhone

function iosHfix(e) {

window.scrollTo(0, 1);

var container=document.getElementById("container");

var oh=container.offsetHeight;

document.documentElement.style.setProperty('height', '100vh');

if (oh!=container.offsetHeight) {

container.style.setProperty('height',"100%");

} else {

container.style.setProperty('height',window.innerHeight+"px");

}

window.scrollTo(0, 0);

pano.setViewerSize(container.offsetWidth, container.offsetHeight);

};

setTimeout(iosHfix,0);

setTimeout(iosHfix,100);

window.addEventListener("resize", function() {

setTimeout(iosHfix,0);

// hide toolbar on iPad happens with a delay

setTimeout(iosHfix,500);

setTimeout(iosHfix,1000);

setTimeout(iosHfix,2000);

});

}

</script>

<noscript>

<p><b>Please enable Javascript!</b></p>

</noscript>

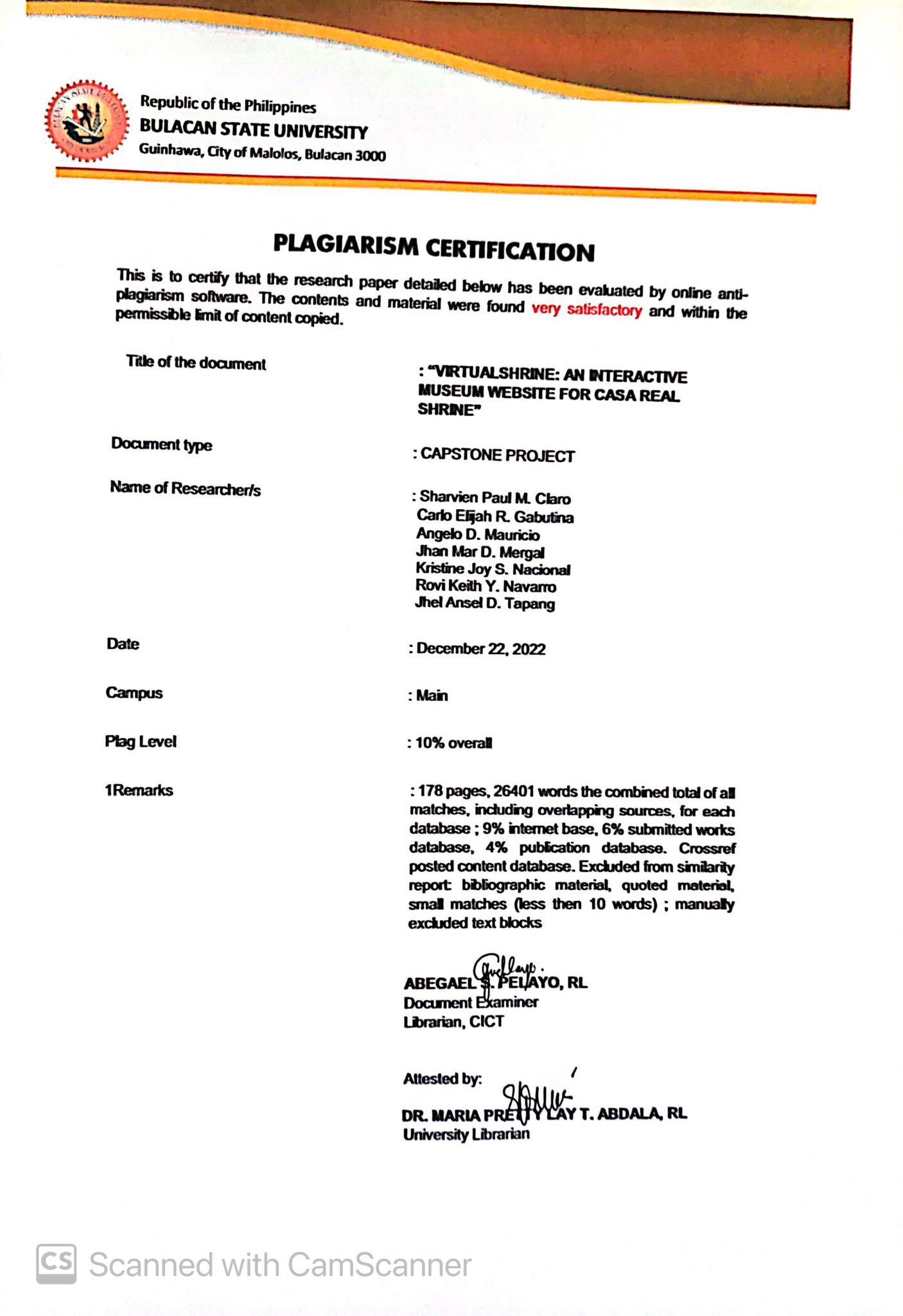
<!-- - - - - - - 8<- - - - - - cut here - - - - - 8<- - - - - - - -->

</body>

</html>

**Appendix I**

*PLAGIARISM CERTIFICATION*



**Appendix J**

*PLAGIARISM CERTIFICATION*

*(IMRAD)*

**Appendix K**

*IMRAD CERTIFICATION*

*(ADVISER)*

Graphical user interface, text

Description automatically generated with medium confidence

**CERTIFICATION**

This is to certify that the IMRAD format for the Capstone/Thesis Project of Claro, Sharvien Paul M., Gabutina, Carlo Elijah R., Mauricio, Angelo D., Mergal, Jhan Mar D., Nacional, Kristine Joy S., Navarro, Rovi Keith Y., and Tapang, Jhel Ansel D. with the title VirtualShrine: An Interactive Museum Website For Casa Real Shrine was already checked by the undersigned that it adheres to all the requirements set for a Research Journal.

Given this 22nd of December, in the year 2022.

MS. MA. RUBY ANGELA J. CRISOSTOMO

Capstone/Thesis Project Adviser

**Appendix L**

*IMRAD PAPER*

**VirtualShrine: An Interactive Museum Website for Casa Real Shrine**

**Gabutina, Carlo Elijah R.**

Bulacan State University  
Marilao, Bulacan, Philippines

carloelijah.gabutina.r@bulsu.edu.ph

**Nacional, Kristine Joy S.**

Bulacan State University  
Valenzuela City, Philippines

kristinejoy.nacional.s@bulsu.edu.ph

**Mauricio, Angelo D.**

Bulacan State University  
Meycauayan, Bulacan, Philippines

angelo.mauricio.d@bulsu.edu.ph

**Navarro, Rovi Keith Y.**

Bulacan State University  
Macabebe, Pampanga, Philippines

rovikeith.navarro.y@bulsu.edu.ph

**Tapang, Jhel Ansel D.**

Bulacan State University  
Malolos, Bulacan, Philippines

jhelansel.tapang.d@bulsu.edu.ph

**Claro, Sharvien Paul M.**

Bulacan State University  
Balagtas, Bulacan, Philippines

sharvienpaul.claro.m@bulsu.edu.ph

**Mergal, Jhan Mar D.**

Bulacan State University  
Meycauayan, Bulacan, Philippines

jhanmar.mergal.d@bulsu.edu.ph

**ABSTRACT**

This study was developed in order to describe the daily operations and its encountered problems of NHCP Museo ng Kasaysayang pampulitika ng Pilipinas, Casa Real. These problems were addressed and analyzed in the developed Casa Real Shrine website and web-based admin information and content management system of cases. The project covers the creation of interactive website, managing of contents uploaded on the website, user management, and reports generation. This study also covered resolving common IT-related problems upon implementation of the web-based management information system. This study was evaluated using standard web evaluation criteria by its intended users and experts.

The proponents conducted observations, interviews, and surveys to acquire the objectives of this study. The research methodology utilized in this project was the quantitative approach. A quantitative approach was applicable to this study as it aims to collect and understand the behavior of Casa Real Shrine’s visitors and how the proponent will apply the results in the implementation of the VirtualShrine website. On developmental research, the proponents studied a process systematically, developed, and evaluated processes that met the set criteria for user’s acceptance to the developed system. The researcher used the Agile Software Development methodology to develop the web-based system. It was used to quickly produce the desired output while allowing the researcher to go back past phases without finishing the whole cycle.

For the acceptability of the developed Casa Real Shrine website, the researchers consulted with IT professionals from different fields, IT instructor from Bulacan State University, and the end-users or clients of the developed system such as the museum staff, students, local and foreign tourist. The evaluation form has the following criteria for software quality evaluation as follows: (: (1) Functionality Suitability; (2) Performance Efficiency; (3) Compatibility; (4) Usability; 5) Reliability; (6) Security; (7) Maintainability; and (8) Portability. The researchers conclude that the developed website is usable and functional and also provides a user-friendly UI/UX design to end-users and also proves that the system is reliable and secured based on the data gathered. The researchers also believe that the system will be a catalyst in booking, storing and protecting the records of the Casa Real Museum. With this, the following recommendations were drawn that can be a basis for future researchers who would want to develop the same type of museum website. (1) An enhance VR control capabilities in virtual tours that could focus on improving the user experience and accessibility of VR technology; (2) A Museum maps that could focus on exploring the use of augmented reality (AR) technology to enhance the visitor experience; (3) QR codes for audio guides in museums could focus on studying the effectiveness of this technology as a tool for enhancing visitor engagement and understanding of museum exhibits; and (4) Calendar integration for museum closures could focus on studying the effectiveness of different notification systems and strategies for informing researchers and other stakeholders about unexpected closures.

**CCS Concepts**

• **Software and its engineering➝ Software creation and management**

**Keywords**

Museum; Website; Booking System; Virtual Tours; Content Management System

# **INTRODUCTION**

# **Project Context**

The internet's global expansion over the years has impacted human activities through digital media, museums are evolving to adapt to the change and encourage young netizens to access and use museum materials [1] Chen, T. L., Lai, W. C., & Yu, T. K. (2021). However, capturing and maintaining the attention of visitors is an absolute challenge in today's world, where information can be found online. Along with the digital revolution, visitor expectations have shifted somewhere along the way, and museums are striving to meet the difficulties posed by this new wave of digital expectations from their visitors [2] Balanchine S., (2018).

In order to adapt with the changes in technology, museums need a visually appealing, informative, and entertaining website to attract visitors. According to Butler J. (2017) [3], digital communications has created an opportunity for many museums around the world to create connections, communities, and relationships. It gives museums new avenues to share information about their exhibits and collections with a vast number of audiences and at the same time, allows them to understand visitor experience. To create a website that accurately depicts what makes a museum unique is to implement an engaging and interactive feature into the website [4] Charr M., (2020). An interactive website is one that allows users to engage with and communicate with the website's content. It takes a unique and entertaining approach that is sure to catch the interest of its users.

According to Madriaga, Virto, & Blaso (2017) [6], the websites of museums were originally intended to provide basic information such as hours of operation, location, and costs. But because of the evolution of digital media, websites now provide a variety of interactive capabilities, like virtual galleries as well as a variety of materials to help visitors navigate better.

Most museums around the world offer the opportunity to purchase or book tickets online because of the threat of Covid-19 virus, museums and galleries are required to have a booking system to limit the visitors visiting the museum at the same time. This way, the spread of virus within the museum could be prevented. [7] Billock J. (2020).

The Casa Real Shrine is one of Malolos oldest structures that was built in 1580 and has witnessed most of the Philippines political history, which is why today, it functions as a museum of Philippine political history. The museum displays the exhibits, printing press of Malolos, display of 21 Women of Malolos memorabilia, Miniature dioramas, theatrical backdrops, interactive terminals, and original artifacts recreate these periods, from the earliest communities to the Spanish and American colonial periods through the Second World War until the present. It is recognized as one of the country’s most notable museums and is one of Bulacan’s pride.

## The Casa Real Shrine plays an important role in the preservation of the local culture and history. Its existence also shapes knowledge by putting together visual cultural narratives that build views of the past and consequently of the present. Which is why it is important that they be able to clearly convey knowledge and information to their visitors all the while accommodating all visitors' needs during their visit. The Casa Real Shrine is popular amongst local and foreign visitors that want to learn about the Political History of the Philippines. The museum also caters educational tours for students and researchers.

Over the years, the Casa Real shrine has used conventional techniques to spread information, generally through live exhibitions of artifacts where people must first visit the physical museum, but in this modern day and age, new trends have emerged, overshadowing the traditional way of attracting visitors. The proponents proposed the development of an Interactive website for casa real which is suitable for adapting digital advancement in the museum and be able to satisfy the needs of the visitors.

The proponents believe that the implementation of the Casa Real Interactive Website will benefit both the Casa Real management and the visitors. Through the Casa Real interactive website, Visitors who want to visit the museum could inquire and book for admission online, the website could serve as the visitors’ digital itinerary and virtual tour guide as they venture into the museum making their visit hassle free. During the testing phase, feedback from end users will be gathered and used to identify recurring issues while also further improving the development of the website. Following the observation of these issues at Casa Real Shrine, the proponents would like to design and develop an Interactive Website for Casa Real Shrine.

# **Purpose and Description of the Project**

The study aims to propose a web base system and bring the Casa Real Shrine to the virtual world as a virtual museum. The study also aims to utilize technology to freely walk and virtually visit the museum of Casa Real Shrine. Proposing a virtual museum is the main concern of the proponents to develop an interactive museum that is user friendly, interactive and provides additional information through the web for Casa Real Shrine is the main concern of this study.

# **Objectives of the Study**

The main purpose of this study is to design and develop a “VirtualShrine: An Interactive Museum Website for Casa Real Shrine” that will be utilized to virtualize Casa Real Shrine. The purpose is to deliver more knowledge to the online museum user by improving users' experience, interactivity, and comprehensive knowledge.

In order to develop the Interactive Website, specific objectives will be considered:

1. To develop a website that can perform functionalities such as:
   1. Online Booking reservation;
   2. Virtual Museum tour;
   3. Gallery Collections;
   4. User assisting features.
      1. Plan Your Visit
      2. Audio Guide
2. To design and develop a Management System that can perform functionalities such as:

2.1 Manage User Admins

2.2 Accept and Reject Visitor booking;

2.3 Upload Website Content

2.3.1 Collections

2.3.2 Exhibits

2.3.3 Blog

2.4 Generate and Print Admin Activity Report

2.5 Booking confirmation through email after reservation

1. To evaluate the level of acceptability of the proposed system using the software quality standard ISO 25010 instrument in terms of the following criterions:

3.1 Functionality Suitability;

3.2 Performance Efficiency;

3.3 Compatibility;

3.4 Usability;

3.5 Reliability;

3.6 Security;

3.7 Maintainability; and

3.8 Portability

# **Scope and Limitation of the Study**

The main concern of this study is to design and develop “VirtualShrine: An Interactive Museum Website for Casa Real Shrine”. This study will help to improve the current situation and will promote the benefits of using an Interactive Website to improve museum operations. The main advantage is its accessibility at any time since it is web-based.

 The proponents will consider several system functionalities which will be incorporated into the proposed system as follows: (a) Online Booking Admission; (b) Virtual Museum Tour; (c) Email confirmation after reservation; (d) Create Educational and Informative Contents; (e) User assisting features; and (f) Report Generation. In addition, the proposed system will offer features like a virtual gallery, number code to access the audio guide

As a part of the limitation of the study, the study will only address the improvement of Casa Real Shrine in integrating a web based interactive museum website. Other areas or matters affecting the structure and maintenance of the museum are not part of our research study.

The study will be utilized using a beta test to observe its purpose, potential changes, and any hazards towards the user. By this method the proponents will be able to come up with information that is vital to the research that could help improve the development of the system and will have great results once the final output is done.

# **SOFTWARE DEVELOPMENT METHODOLOGY**

# The quantitative technique was used in the study to collect data from visitors of the Casa Real Shrine of Malolos. The proponents gathered statistics on visitor satisfaction comparing the present museum operations without the website and the museum operations after the website is implemented.

# The research and development element of the design involves (1) analyzing the existing museum operations, (2) innovating and developing a system based on the findings, and (3) testing the efficacy of the innovation. The approach includes a quantitative examination of the program/system, its components, as well as implementation and outcome data. Essentially, the procedure includes conducting comprehensive documentation analysis.

# The study used an agile method for research, it is based on based on iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams. can help develop the features of the Casa Real Virtual Museum.

# **RESULTS AND DISCUSSION**

# The developed interactive museum website was assessed in terms of functional suitability, performance efficiency, usability, reliability, and portability using the ISO/IEC 25010:2011 or the Square - System and Software Quality Models.

Table 1. Total Number of Respondents

|  |  |  |
| --- | --- | --- |
| Evaluators | Frequency | Percentage (%) |
| IT Professionals | 5 | 11 |
| CICT Faculty | 5 | 11 |
| Casa Real Shrine Museum Staff | 3 | 7 |
| Student | 12 | 27 |
| Local Tourist | 10 | 22 |
| Foreign Tourist | 10 | 22 |
| Total | **45** | **100** |

# The respondents of this study are five (5) IT Professionals that have proven extensive knowledge or working in the field of Information Technology, five (5) Faculty Members from the College of Information and Communications Technology, twelve (12) students, ten (10) Local Tourist, ten (10) Foreign Tourist and three (3) Casa Real Shrine Museum Staff.

Table 2. 5-Score Likert Scale

|  |  |  |
| --- | --- | --- |
| Scale | Range | Descriptive Interpretation |
| 5.0 | 4.60 - 5.00 | Strongly Agree |
| 4.0 | 3.60 - 4.59 | Agree |
| 3.0 | 2.60 - 3.59 | Moderately Agree |
| 2.0 | 1.60 - 2.59 | Disagree |
| 1.0 | 0 - 1.59 | Strongly Disagree |

# The evaluation procedure used a five-score scale which is 1 for Strongly Disagree, 2 for Disagree, 3 for Moderately Agree, 4 for Agree, and 5 for Strongly Agree. The five-score rating with its frequencies was collected from 11 respondents and the computed mean.

Table 3. Frequency Distribution and Descriptive Measures in the Evaluation of the Developed Interactive Museum Website using the ISO/IEC 25010:2011 or the Square - System and Software Quality Models

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Weighted Mean** | **Descriptive Interpretation** |
| Functional Suitability | 4.64 | Strongly Agree |
| Performance Efficiency | 4.65 | Strongly Agree |
| Compatibility | 4.69 | Strongly Agree |
| Usability | 4.71 | Strongly Agree |
| Reliability | 4.68 | Strongly Agree |
| Security | 4.78 | Strongly Agree |
| Maintainability | 4.79 | Strongly Agree |
| Portability | 4.84 | Strongly Agree |
| **Overall** | **4.72** | **Strongly Agree** |

**Functional Suitability**. The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. It means that the researchers accomplish the stated and implied functionalities in the application.

**Performance Efficiency**. The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. It means that the application can process and give accurate information in a short time and takes only a small proportion of resources.

**Compatibility.** The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. This shows that the website Virtual Shrine has complete features when it comes to compatibility.

**Usability**. The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. It means that the respondents agree that the functionalities serve their purpose and can be used by many in the future.

**Reliability**. The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. The application provides accurate information that has proved useful and available to use freely when the user needs its service.

**Security.**  The developed interactive museum website attains a high-positive value that can be interpreted as Strongly Agree. The system makes sure the data are secure, prohibits unauthorized users from accessing and changing the data, and saves auditable logs that demonstrate each activity was made.

**Maintainability**. The developed interactive museum website also attains a high-positive value that can be interpreted as Strongly Agree. It demonstrates the system's adaptability to various hardware, software, and other operational or usage scenarios. Mobile devices like smartphones, tablets, and PCs can all access the designed system online.

**Portability**. The developed interactive museum website also attains a high-positive value that can be interpreted as Strongly Agree. The application can adapt to different OS versions and can still have the same valuable information.

Overall, with a weighted mean of 4.72, the developed interactive museum website met the software quality standards and concluded as Highly Acceptable.

# **CONCLUSIONS**

As a result of this study led to the creation of a website which fulfilled all the stated and intended features. The website proved to be advantageous to all users, who can use it to discover the history of Philippine politics. It is expected that more individuals will be interested and intrigued by the history of the Casa Real Shrine as a result of the websit.

# **RECOMMENDATIONS**

Considering the findings and conclusion of the study, the following recommendations were drawn and can serve as a basis for future researchers who would want to develop a similar application:

1. Enhancing VR control capabilities in virtual tours that could focus on improving the user experience and accessibility of VR technology. This could involve exploring new ways to interact with virtual environments, such as using voice commands or gesture recognition, as well as studying how to make VR technology more accessible to people with disabilities.

2. Museum maps that could focus on exploring the use of augmented reality (AR) technology to enhance the visitor experience. This could involve developing AR museum maps that can be accessed through a smartphone or other device, allowing visitors to see virtual annotations and information about exhibits as they explore the museum.

3. QR codes for audio guides in museums could focus on studying the effectiveness of this technology as a tool for enhancing visitor engagement and understanding of museum exhibits. This could involve conducting user studies to evaluate the usefulness and ease of use of QR code-based audio guides, as well as examining how different design elements and features impact visitor behavior and engagement.

4. Calendar integration for museum closures could focus on studying the effectiveness of different notification systems and strategies for informing researchers and other stakeholders about unexpected closures. This could involve conducting user studies to evaluate the effectiveness of different notification methods, such as email, text message, or push notification, as well as examining the impact of different timing and frequency of notifications on researcher behavior and satisfaction.

# **ACKNOWLEDGEMENTS**

To these people, who made all of this work possible, we reach our deepest and sincerest gratitude. Without them, our capstone would not have been working well and properly or worse, unfinished.

First and foremost, the proponents would like to acknowledge our capstone adviser, Angela J. Crisostomo who with her guidance, arrangements and advice that led us through all obstacles that put a hindrance in our progress and made possible through her arrangements that the proponents needed most.

To our capstone coordinator, Ma’am Mayleen Dorcas Castro, with her teachings and always reminding how we can be more professional in our work and proper ethical way of conducting our research. We thank you.

For the staff of Museo ng Kasaysayang Pampulitika ng Pilipinas, we thank you for agreeing to be our client and giving us the opportunity to make a website with our creative freedom towards developing it, Thank you all.

To our parents, we would like to acknowledge them for their non-stop support towards our goal and to our daily lives. Having them by our sides, guiding us always and their love for us.

Last but not the least, we thank you God for blessing us every day on our journey in developing our system and for answering our prayers and giving us strength despite all the odds that may have affected our will to push, we thank you so much.

# **REFERENCES**

1. Chen, T. L., Lai, W. C., & Yu, T. K. (2021, January 11). Participating in Online Museum Communities: An Empirical Study of Taiwan’s Undergraduate Students. Frontiers in Psychology, Volume11, https//10.3389/fpsyg.2020.565075, ISSN=1664-1078, Retrieved May 11, 2022, from https://www.frontiersin.org/articles/10.3389/fpsyg.2020.565075/full
2. Balanchine, S. (2018, September 29). Museum Marketing Challenges and Solutions in Digital Transformation Era. Retrieved from Cetrix: https://www.cetrixcloudservices.com/blog/museum-marketing-challenges-and-solutions-in-digital-transformation-era
3. Butler, J. (2017, August 31). Five takeaways on how museums are adapting to digital age demands. Retrieved from Knight Foundation: https://knightfoundation.org/articles/five-takeways-on-how-museums-are-adapting-to-digital-age-demands/
4. Charr, M. (2020). What makes a good museum website? Retrieved from Museum Next: https://www.museumnext.com/article/what-makes-a-good-museum-website/
5. Allen, L. B., & Crawley, K. J. (2013, November 25). Challenging Beliefs, Practices, and Content: How Museum Educators Change. Retrieved from Wiley Online Library: https://onlinelibrary.wiley.com/doi/10.1002/sce.21093
6. Madriaga, J. G., Virto, N. R., & Blaso, F. (2017, August). The influence of museums’ websites on users’ intentions. Retrieved from ResearchGate: https://www.researchgate.net/publication/318701715\_The\_influence\_of\_museums'\_websites\_on\_users'\_intentions
7. Billock, J. (2020, September 16). How Will Covid-19 Change the Way Museums Are Built? Retrieved from Smithsonian: https://www.smithsonianmag.com/travel/how-will-covid-19-change-way-future-museums-are-built-180975022/
8. Altameem, E. (n.d.). Impact of Agile Methodology on Software Development | Altameem | Computer and Information Science | CCSE. Impact of Agile Methodology on Software Development | Altameem | Computer and Information Science | CCSE. Retrieved December 20, 2022, from https://www.ccsenet.org/journal/index.php/cis/article/view/44383

**Appendix M**

*CURRICULUM VITAE*



**SHARVIEN PAUL**

**M. CLARO**

**D O C U M E N T E R**

C O N T A C T

 09062698915

[sharvienpaul.claro.m@bulsu.edu.ph](mailto:sharvienpaul.claro.m@bulsu.edu.ph)



 Borol 2nd Balagtas Bulacan

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



E X P E R I E N C E

* Work Immersion

T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)

E D U C A T I O N

Dr. Yanga’s College INC.

2017-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

S K I L L S

* Time Management
* Fast learner
* Flexibility
* Planning
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Java)

P E R S O N A L

I N F O R M A T I O N

**Age:** 21 years’ old

**Birthday:** April 28, 2001

**Citizenship:** Filipino

**Civil Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Niela Claro

**Father’s Name:** Simplicio Claro



**CARLO ELIJAH**

**R. GABUTINA**

**Q U A L I T Y A S S U R A N C E T E S T E R**

C O N T A C T

 09092065191

 carloelijah.gabutina.r@bulsu.edu.ph

 Lias, Marilao, Bulacan

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



E D U C A T I O N

ACLC College of Meycauayan

2016-2018

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

P E R S O N A L

I N F O R M A T I O N

**Age:** 22 years’ old

**Birthday:** May 11, 2000

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Julie Ann Gabutina

**Father’s Name:** Frederick Gabutina

T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)

E X P E R I E N C E

* Work Immersion
* Assistant to the supervisor in ACLC

S K I L L S

* Time Management
* Resourcefulness
* Flexibility
* Planning
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Python)

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



**ANGELO D. MAURICIO**



**Q U A L I T Y A S S U R A N C E T E S T E R**

P E R S O N A L

I N F O R M A T I O N

**Age:** 22 years’ old

**Birthday:** January 12, 2001

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Salvacion D. Mauricio

**Father’s Name:** Emeric R. Mauricio

E D U C A T I O N

ACLC College of Meycauayan

2017-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

C O N T A C T

 09756759366

 angelo.mauricio.d@bulsu.edu.ph

 Iba, Meycauayan, Bulacan

S K I L L S

* Time Management
* Flexibility
* Planning
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Java)

T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)
* IT Week Seminar

E X P E R I E N C E

* Work Immersion
* Assistant to the supervisor in ACLC

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



**JHAN MAR D.**

**MERGAL**

**F U L L S T A C K D E V E L O P E R &**

**S Y S T E M A D M I N I S T R A T O R**

P E R S O N A L

I N F O R M A T I O N

**Age:** 21 years’ old

**Birthday:** March 22, 2001

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Janette D. Mergal

**Father’s Name:** Marvin N. Mergal

E D U C A T I O N

Meycauayan National High School

2013-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

C O N T A C T

 09152070169

 jhanmar.mergal.d@bulsu.edu.ph

 Bagbaguin, Meycauayan, Bulacan



T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)

E X P E R I E N C E

* Special Program of the Employment of Students (SPES) – 2018
* Team Leadership at Versaman Chemical Solutions
* Freelance Full Stack Developer

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



S K I L L S

* Time Management
* Resourcefulness
* Flexibility
* Planning
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Java)
* Web Development (PHP, CSS, WordPress)

**KRISTINE JOY S. NACIONAL**

**T E A M L E A D E R &**

**F U L L S T A C K D E V E L O P E R**

P E R S O N A L

I N F O R M A T I O N

**Age:** 22 years’ old

**Birthday:** June 03, 2000

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Female

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Elena Marie S. Nacional

**Father’s Name:** Francy P. Nacional

E D U C A T I O N

ACLC College of Meycauayan

2017-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

C O N T A C T

 09361685997

 kristinejoy.nacional.s@bulsu.edu.ph

 Bignay, Valenzuela City

S K I L L S

* Ability to work under pressure
* Good problem solver
* Good decision-maker
* Resourcefulness
* Flexibility
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Java)
* Web Development (PHP, CSS)

T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)

E X P E R I E N C E

* Special Program of the Employment of Students (SPES) – 2015
* Work Immersion



I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



**ROVI KEITH Y.**

**NAVARRO**

**F R O N T – E N D D E V E L O P E R**

P E R S O N A L

I N F O R M A T I O N

**Age:** 21 years’ old

**Birthday:** January 21, 2001

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Cristina Y. Navarro

**Father’s Name:** Robert B. Navarro

E D U C A T I O N

Pampanga Colleges

2017-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

C O N T A C T

 09612947453

 rovikeith.navarro.y@bulsu.edu.ph

 Macabebe, Pampanga

S K I L L S

* Time Management
* Multitasking
* Resourcefulness
* Flexibility
* Planning
* Basic Programming (C++, Java, JavaScript, & Python)
* Web Development (PHP, CSS, Bootstrap)

T R A I N I N G S / S E M I N A R S

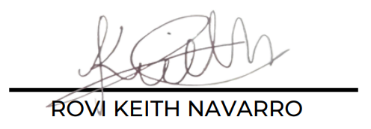
A T T E N D E D :

* IT week seminars
* StackLeague University Series: Bulacan State University Edition (2022)
* Research seminar in Pampanga Colleges

E X P E R I E N C E

* Work Immersion
* Assistance to the Administrator in STI

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



**JHEL ANSEL D.**

**TAPANG**

P E R S O N A L

I N F O R M A T I O N

**Age:** 21 years’ old

**Birthday:** August 14, 2001

**Citizenship:** Filipino

**Civil** **Status**: Single

**Gender:** Male

**Languages (Speak):** Tagalog, and English

**Mother’s Name:** Amelia D. Tapang

**Father’s Name:** Jesus V. Tapang

E D U C A T I O N

La Consolacion University

2017-2019

SECONDARY SCHOOL

Bulacan State University

2019-2023 (Anticipated Graduation)

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

C O N T A C T

 09125216212

 [jhelansel.tapang.d@bulsu.edu.ph](mailto:jhelansel.tapang.d@bulsu.edu.ph)

 Lugam Malolos, Bulacan

S K I L L S

* Time Management
* Flexibility
* Planning
* Microsoft Office (Excel, Word, PowerPoint)
* Basic Programming (C++ & Java)

T R A I N I N G S / S E M I N A R S

A T T E N D E D :

* StackLeague University Series: Bulacan State University Edition (2022)
* CICT Week
* IT Seminars

E X P E R I E N C E

* Work Immersion

I Hereby to certificate that the above information is true and correct to the best of my knowledge and ability



**D O C U M E N T E R**