

A

Project Report

on

Wildlife Impulse

In partial fulfillment of Post Graduate course

in

Master of Science (Computer Applications) – I

(Semester -II)

CSA4212 Computer Applications Project - I

SUBMITTED BY

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(2019 – 2020)



**Deccan Education Society's
Fergusson College (Autonomous), Pune
Department Of Computer Science**

CERTIFICATE

This is to certify that the project entitled "Wildlife Impulse",
submitted by:

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2. Gauri Bankar

in partial fulfillment for the requirement of the completion of M.Sc.(Computer Applications) [Semester-II]
CSA4212 Computer Applications Project – I, has been carried out by them satisfactorily during the academic year
2019-2020.

Place: Pune

Date: / /2020

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**Co-ordinator
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Examiners Name

Signature

1.

2.

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1. Introduction

1.1 Existing System:-

Today, there are a lot of websites that give information about our planet's wildlife. One such example is the site: <https://kids.nationalgeographic.com/>. This website gives us information about different types of life forms, such as, Mammals, Amphibians, Fishes and much more.

Apart from wildlife, this website also gives us information about Space, Science, and 'Weird but True' Facts. They also have a 'Moment of..' page where pictures focusing on a particular theme are uploaded. Examples of this are: 'moment of aww', 'moment of yikes', 'moment of joy', and 'moment of oops'.

1.2 Need of the System:-

In our proposed system, we have chosen the topics of 'Mammals', 'Marine Life', 'Birds' and 'Reptiles'. Our system not only provides information, but also a follow-up quiz to test the user's knowledge based on the information provided.

We also have a video of the corresponding topic. For instance, on the main page, a video featuring all life forms of our system is played. Also, if you select 'Mammals', a short video of some selected mammals will play.

After you complete the quiz, it will immediately display your result. In case of a wrong answer, it will also display the correct option for that question.

It can be said that our system has ease of use. You can watch the video, read and learn the information, and then immediately test your knowledge by taking the quiz.

1.3 Overview of the Project:-

First on the main page, a short video of around 20 seconds will play. This video will showcase the different types of life forms we have chosen in our system. After this, on scrolling down, you can choose from the following four modules:

1. Mammals
2. Birds
3. Marine Life
4. Reptiles

Each module contains information about 6-8 animals based on that category. A picture will be provided along with a brief information about that species. After reading all the information, you can proceed to take the quiz.

The quiz contains of 10 questions. We need to answer all the questions to proceed further. Result will be shown immediately after. In case we answered a particular question wrong, the correct answer will be highlighted.

At the end of the page, we have a panel of some random facts.

2. Analysis

2.1 Feasibility Study

2.1.1 Technical Feasibility:-

This feasibility determines whether it is possible to develop the project with available equipment, software technology and manpower. It is the study of the project in terms of input, processes, output, fields, programs and procedures. It is very effective tool for long term planning and troubleshooting.

2.1.2 Economical Feasibility:-

In this feasibility the tangible and intangible benefits are considered. To access the economic feasibility of our project budget is important. This website is affordable and requires only an internet connection as it can be operated on laptop/desktop. Customers budget or developer's budget is not affected such is the economic feasibility. The purpose of an economic feasibility study is to demonstrate the net benefit of a proposed project or accepting or disbursing electronic benefits / funds, taking into consideration the benefits and costs to the agency, other static agencies and the general public as a whole.

2.1.3 Operational Feasibility:-

In this case the operationally implementation cost of the system is considered. Our system project requires no cost and can be implemented efficiently with just an internet connection.

2.2 Hardware and Software Requirement

- **Hardware Requirement:**

System available and used for our project are:

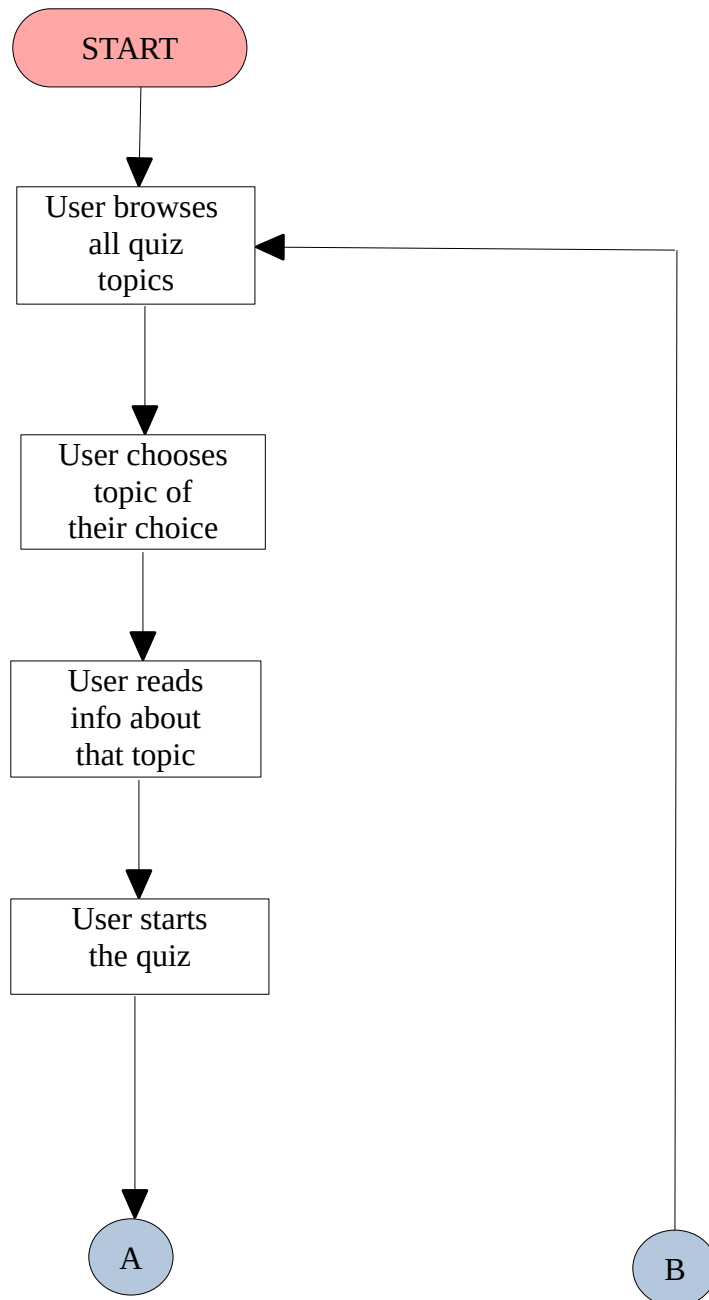
- (a) Operating System: Linux Mint 18 ‘Serena’
- (b) Kernel Release: 4.4.0-104-generic
- (c) CPU Model: Intel ® Core™ i5-6200u CPU
- (d) CPU core : 4
- (e) CPU Speed : 2.30GHz
- (f) Keyboard: 105 keys

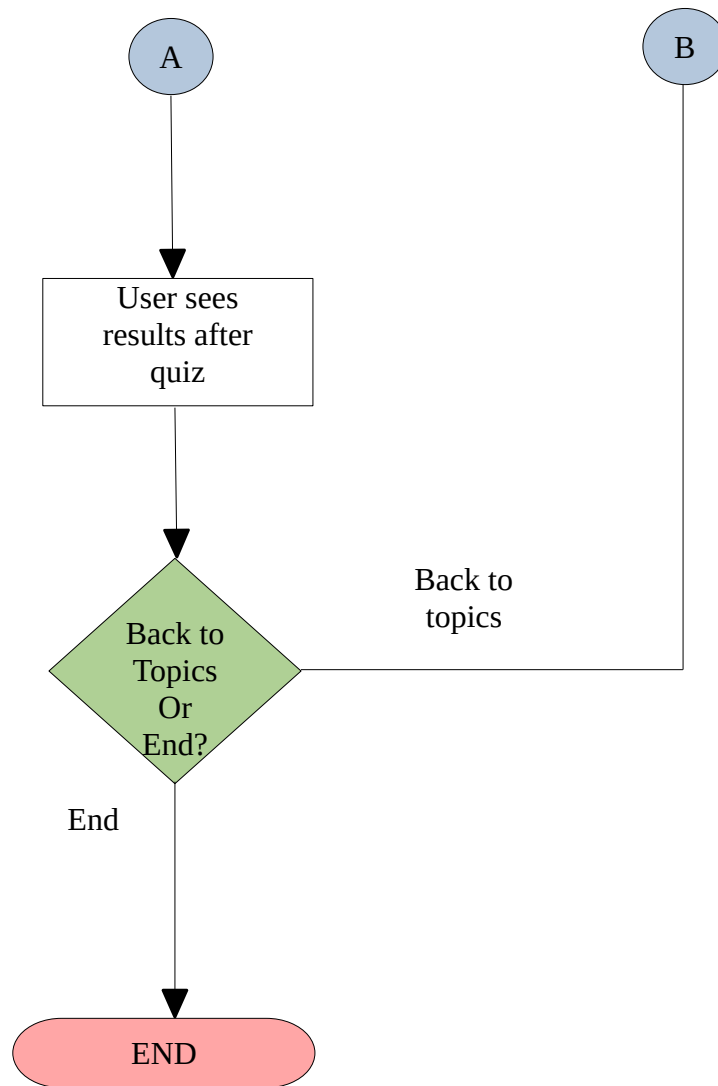
- **Software Requirement:**

Front-End: AngularJS, jQuery, HTML, Bootstrap, Materialize CSS

3. Design

3.1 Flowchart:





3.2 Input and Output Screens

Main Page:

Wildlife Impulse

Welcome to the wondrous world of our nature!



Gray Wolf

(main page video plays)

Wildlife Impulse

Welcome to the wondrous world of our nature!



Koala

(main page video plays)

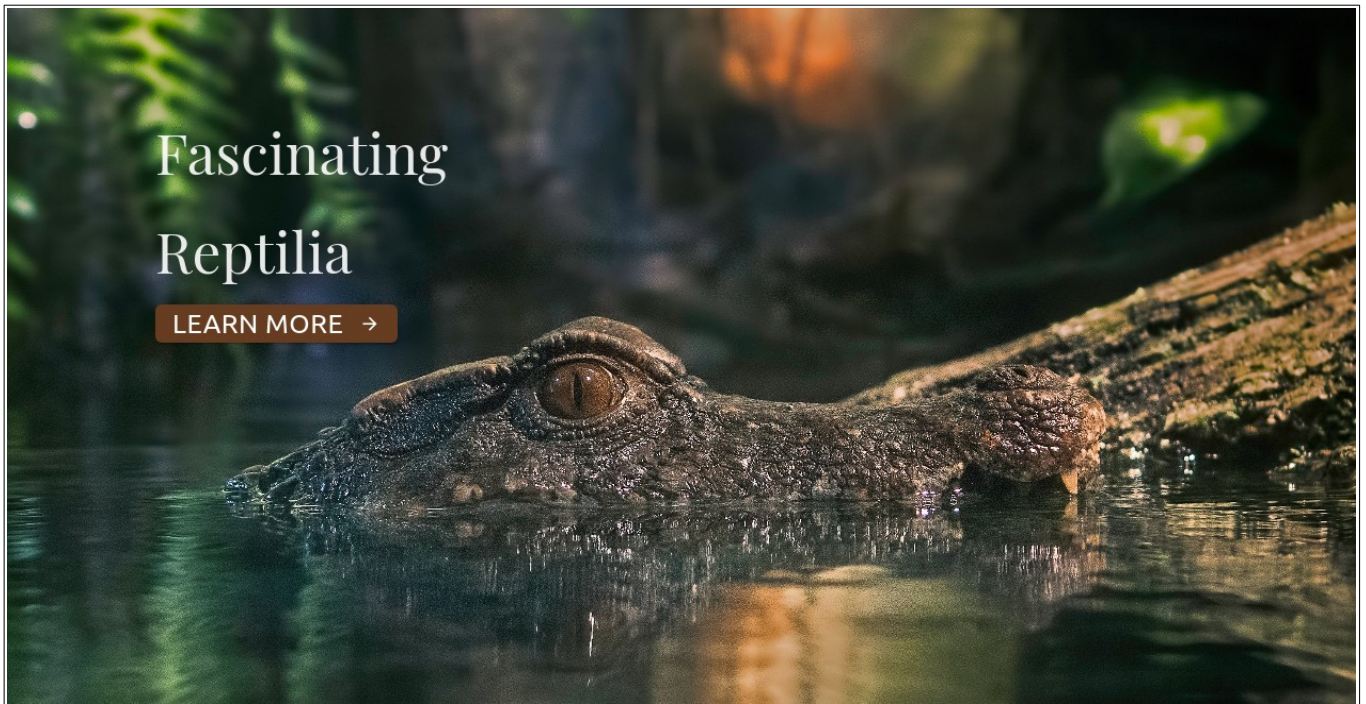
Take a deep breath, gang, as we dive into our animal kingdom.





See Sights of Intriguing Birds

[LEARN MORE →](#)



Fascinating Reptilia

[LEARN MORE →](#)

Here's some facts you never heard before!

DID YOU KNOW?

< Gray wolves are the planet's most widespread large land mammals after humans and livestock. >

Here's some facts you never heard before!

DID YOU KNOW?

< Only male humpback whales "sing".
The song is most complex in the animal kingdom. >

Website design by Gauri Bankar & Rutuja Gholap

Mammal Facts & Quiz

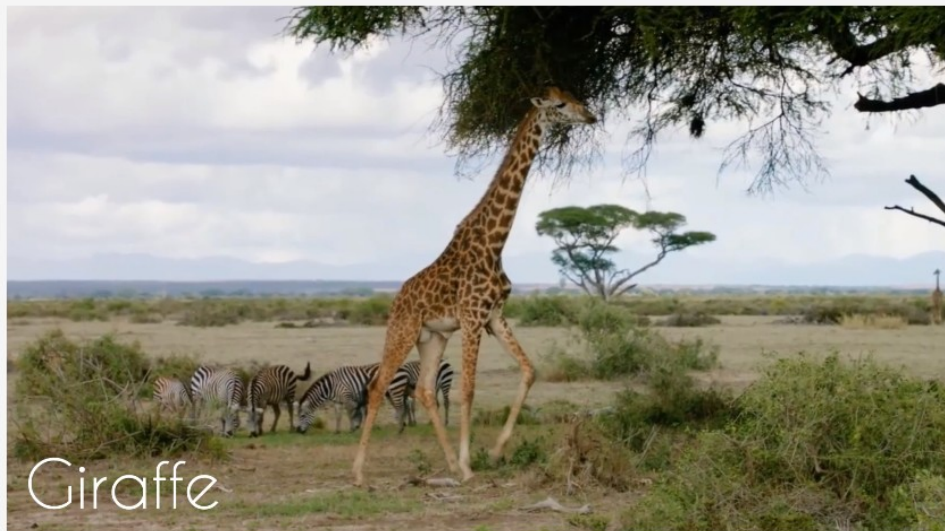
Learn about all the mammals below, before you decide to take on the Mammal Quiz.



(mammal video plays)

Mammal Facts & Quiz

Learn about all the mammals below, before you decide to take on the Mammal Quiz.



(mammal video plays)

Search...



Test Yourself



African Elephant

Locations: Africa
Size: 8.2-13 ft, 5000 pounds & above
Average Lifespan: Up to 70 years
Diet: Herbivore

[Learn More](#)



Amur Leopard

Locations: Russia
Size: 6 - 7 ft, 70 - 105 pounds
Average Lifespan: 10 - 15 years
Diet: Carnivore

[Learn More](#)



Giraffe

Locations: Africa
Size: 14-19 ft, 1,750-2,800 pounds
Average Lifespan: 25 years
Diet: Herbivore

[Learn More](#)



Giant Panda

Locations: Central China
Size: 4 - 5 ft, 300 pounds
Average Lifespan: 20 years
Diet: Omnivore

[Learn More](#)



Gray Wolf

Locations: Eurasia & North America.
Size: 3 - 5.25 ft, 40 - 175 pounds
Average Lifespan: 6 - 8 years
Diet: Carnivore

[Learn More](#)



Kangaroos

Locations: Australia
Size: 9.18 ft, 200 pounds
Average Lifespan: Up to 23 years
Diet: Herbivore

[Learn More](#)



Koala

Locations: Eastern Australia
Size: 1.95 - 2.79 ft, 20 pounds
Average Lifespan: 20 years
Diet: Herbivore

[Learn More](#)



Mountain Gorilla

Locations: Africa
Size: 4 - 6 ft, 300 - 485 pounds
Average Lifespan: 35 years
Diet: Omnivore

[Learn More](#)



Mountain Lion

Locations: America
Size: 3.25 - 5.25 ft, 136 pounds
Average Lifespan: 8 - 13 years
Diet: Carnivore

[Learn More](#)



Polar Bear

Locations: Arctic, Canada, Russia
Size: 7.25 - 8 ft, 900 - 1,600 pounds
Average Lifespan: 25 - 30 years
Diet: Carnivore

[Learn More](#)



Tiger

Locations: Asia
Size: 5 - 6 ft, 240 - 500 pounds
Average Lifespan: 8 - 10 years
Diet: Carnivore

[Learn More](#)



Zebra


Locations: Africa
Size: 3.5 - 5 ft, 440 - 990 pounds
Average Lifespan: 25 years
Diet: Herbivore

[Learn More](#)

Website Design By Gauri Bankar & Rutuja Gholap

(information about mammals)

Test Yourself



Polar Bear

Locations: Arctic, Canada, Russia


Size: 7.25 - 8 ft, 900 - 1,600 pounds

Average Lifespan: 25 - 30 years

Diet: Carnivore

[Learn More](#)

(search results)



African Elephant

Locations: Africa


Size: 8.2-13 ft, 5000 pounds & above

Average Lifespan: Up to 70 years

Diet: Herbivore

An adult African elephant's trunk is about seven feet (two meters) long! It's actually an elongated nose and upper lip. Like most noses, trunks are for smelling. Elephants are social creatures. They sometimes hug by wrapping their trunks together in displays of greeting and affection. Elephants also use their trunks to help lift or nudge an elephant calf over an obstacle, to rescue a fellow elephant stuck in mud, or to gently raise a newborn elephant to its feet. One elephant can eat 300 pounds (136 kilograms) of food in one day. Since African elephants live where the sun is usually blazing hot, they use their trunks to help them keep cool. First they squirt a trunkful of cool water over their bodies. Then they often follow that with a sprinkling of dust to create a protective layer of dirt on their skin.

[Close](#)



Amur Leopard


Locations: Russia

Size: 6 - 7 ft, 70 - 105 pounds

Average Lifespan: 10 - 15 years

Diet: Carnivore

[Learn More](#)



Giant Panda


Locations: Central China

Size: 4 - 5 ft, 300 pounds

Average Lifespan: 20 years

Diet: Omnivore

[Learn More](#)



Kangaroos

Locations: Australia

Size: 9.18 ft, 200 pounds

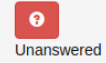
(detailed information)

Mammal Facts & Quiz

Progress:



Legend:



Question:

1. Which of these animal is found in Eurasia?

Koala

Mountain Gorilla

Giraffe

Gray Wolf

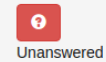
Continue

Mammal Facts & Quiz

Progress:



Legend:



Question:

7. Who is social creature?

Giant Panda

Koala

African Elephant

Mountain Gorilla

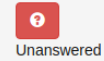
Continue

Mammal Facts & Quiz

Progress:



Legend:



Question:

Are you sure you want to submit your answers?

YES

NO

Mammal Facts & Quiz

Results:



Legend:



You Scored 7 / 10

70.00%

Questions:

4. How heavy can be an African Elephant?

2,800 pounds & above

3000 pounds

Your Answer

900 - 1,600 pounds

5000 pounds & above

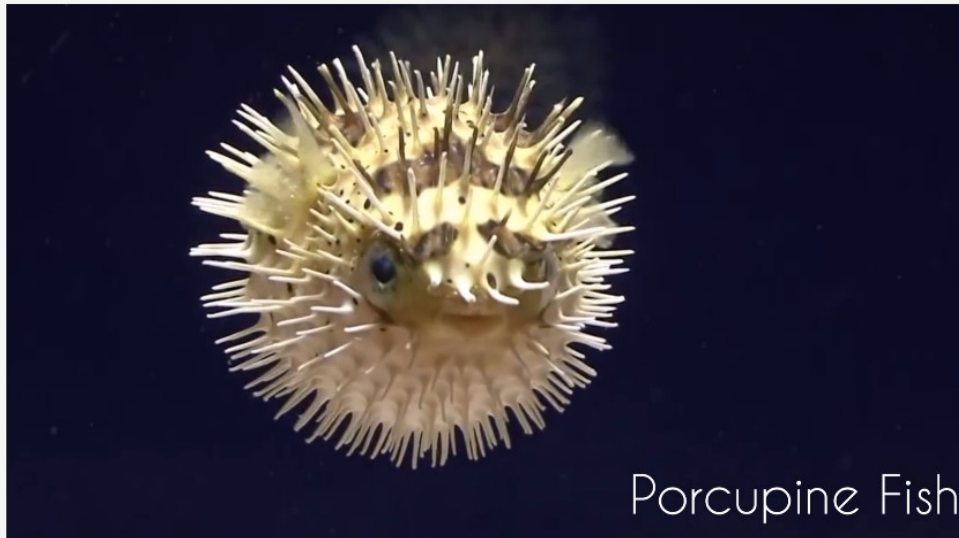
Correct Answer

Go Back To Facts

Marine Life Module:

Marine Life Facts & Quiz

Learn about all the marine life below, before you decide to take on the Marine Life Quiz.



(Marine Life video plays)

Porcupine Fish

Search...



Test Yourself



Angel Shark

Locations: Atlantic Ocean

Size: 5 feet, 77 pounds

Average Lifespan: 25 to 35 years

Diet: Carnivore

Learn More



Blue Marlin

Locations: Tropical ocean, Atlantic

Size: 14 feet, 1,985 pounds

Average Lifespan: 27 years

Diet: Carnivore

Learn More



Clown Anemonefish

Locations: Indian & Atlantic Ocean

Size: 0.35 feet, 0.44 pounds

Average Lifespan: 6 - 10 years

Diet: Carnivore

Learn More



Electric Eel



Locations: South America

Size: 6 - 8 feet, 44 pounds

Average Lifespan: 15 years

Diet: Carnivore

Learn More

White Shark

Locations: All Major Oceans

Size: 11 - 20 feet, 1,146 - 2,425 pounds

Average Lifespan: 70 Years

Diet: Carnivore

The great white shark is notable for its size. Great white sharks can swim at speeds of over 56 km/h (35 mph). The great white shark has no known natural predators other than, on very rare occasions, the killer whale. When the shark bites, it shakes its head side-to-side, helping the teeth saw off large chunks of flesh. They can detect the electromagnetic field emitted by the movement of living animals. Great White Sharks don't have eyelids, but they can roll their eyeballs during attack to prevent eye injury. Great Whites don't produce sounds. They communicate using body language and scents. Great White Sharks may attack people, but they will not eat them

Sawshark

Locations: Indian & Pacific Ocean

Size: 1.1 - 3 feet, 18.7 pounds

Average Lifespan: 15 years

Diet: Carnivore

White Shark

Locations: All Major Oceans

Size: 11 - 20 feet, 1,146 - 2,425 pounds

Average Lifespan: 70 Years

Diet: Carnivore

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Marine Life Facts & Quiz

Progress:

Legend:

Answered

Unanswered

Error! You have not answered all of the questions!

Question:

10. Which of these marine life is omnivore ?

Sawshark

Angel Shark

Blue Marlin

Humpback Whale

Continue

Bird Module:

Bird Facts & Quiz

Learn about all the birds below, before you decide to take on the Bird Quiz.

[Test Yourself](#)

(Bird video plays)



Indian Peacock

Diet: Omnivore
Average Lifespan: Up to 20 years
Size: 35 - 50 inches
Weight: 8.75 to 13 pounds

[Learn More](#)

Northern Mockingbird

Diet: Omnivore
Average Lifespan: 8 to 20 years
Size: 10 inches
Weight: 47-51 grams

[Learn More](#)

Ostrich

Diet: Omnivore
Average Lifespan: 30 to 40 years
Size: 7 to 9 feet
Weight: 220 to 350 pounds

[Learn More](#)

Peregrine Falcon

Diet: Carnivore
Average Lifespan: Up to 17 years
Size: Body: 14 to 19 inches;
Wingspan: 3.3 to 3.6 feet
Weight: 18.8 to 56.5 ounces

[Learn More](#)

Pileated Woodpecker

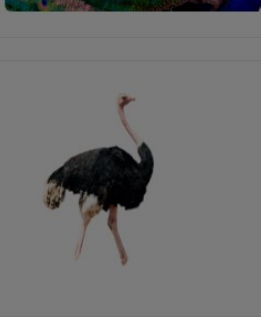

Diet: Omnivore
Average Lifespan: 4 to 12 years
Size: Body: 16 to 19 inches;
Wingspan: 26 to 30 inches
Weight: 8.8 to 12.3 ounces

[Learn More](#)

Snowy Owl

Diet: Carnivore
Average Lifespan: 10 years
Size: Body: 20 to 28 inches;
Wingspan: 4.2 to 4.8 feet
Weight: 3.5 to 6.5 pounds

[Learn More](#)

Snowy Owl

Type: Snowy Owl

Diet: Carnivore

Average Lifespan: 10 years

Size: Body: 20 to 28 inches; Wingspan: 4.2 to 4.8 feet

Weight: 3.5 to 6.5 pounds

These large owls mainly live in the Arctic in open, treeless areas. Snowy owls perch on the ground or on short posts. From there they patiently watch for prey. Their favorite target is lemmings. Snowy owls have excellent eyesight, but they obviously can't see their prey when it's underneath snow or a thick layer of plants. To capture those meals, the owl relies on its other keen sense: hearing. In flight, snowy owls generally cruise low to the ground. Once they spot their prey, they approach it from the air, and snatch it up using the claws on their feet. The snowy owl is active during the day, especially in the summertime. They tend to be most active at dawn and dusk.

Peregrine Falcon

Diet: Carnivore

Average Lifespan: Up to 17 years

Size: Body: 14 to 19 inches; Wingspan: 3.3 to 3.6 feet

Weight: 18.8 to 56.5 ounces

Snowy Owl

Diet: Carnivore

Average Lifespan: 10 years

Size: Body: 20 to 28 inches; Wingspan: 4.2 to 4.8 feet

Weight: 3.5 to 6.5 pounds

[Learn More](#)
[Learn More](#)
[Learn More](#)

[Close](#)

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Bird Facts & Quiz

Results:

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

Legend:

✓

✗

Correct

Incorrect

You Scored 10 / 10

100.00%

Questions:

1. What is the size of a Peacock's tail?

4 feet

3 feet

5 feet

2 feet

Correct Answer

[Go Back To Facts](#)

Reptile Module:

Reptile Facts & Quiz

Learn about all the reptiles below, before you decide to take on the Reptile Quiz.

[Test Yourself](#)

(Reptile video plays)



Alligator

Diet: Carnivore
Average Lifespan: 35 to 50 years
Size: 10 to 15 feet
Weight: 1,000 pounds

[Learn More](#)

Chameleon

Diet: Carnivore
Average Lifespan: 12 years
Size: 21 inches
Weight: 14.4 ounces

[Learn More](#)

Desert Tortoise

Diet: Herbivore
Average Lifespan: 50 to 80 years
Size: 35.5 cm
Weight: 5 Kg

[Learn More](#)

Green Sea Turtle

Diet: Herbivore
Average Lifespan: 80 or more years
Size: Up to 5 feet
Weight: Up to 700 pounds

[Learn More](#)

King Cobra

Diet: Carnivore
Average Lifespan: 20 years
Size: 13 feet
Weight: Up to 20 pounds

[Learn More](#)

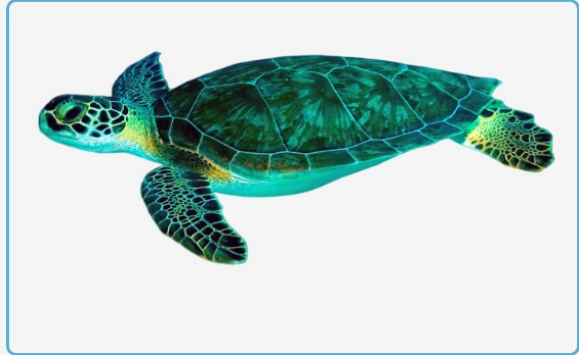
Komodo Dragon

Diet: Carnivore
Average Lifespan: Up to 30 years
Size: 10 feet
Weight: 330 pounds

[Learn More](#)

Question:

3. Which of these is the Green Sea Turtle?



4. Testing

4.1 Importance of Testing

In projects, testing is a way to make sure that the requirements under a project are fulfilled accurately and it is risk free from the manual errors, system environment issues, coding issues, deadlock , crashes, performance, security etc.

Testing also helps to make our product better by knowing and understanding the risks associated with it. Risks can be related to :

1. User experience
2. Usability
3. Functionality
4. Market and Competitors analysis

Following are some of the examples that state the importance of testing:

- It produces a defect-free product/software.
- It ensures that the customer/end-user is satisfied.
- It ensures the all the requirements are met.
- It ensures the proper working of all the functionalities of an application/software/product.
- It makes sure that the system is reliable.
- It ensures that the software/product works as expected.
- It ensures security and safety.
- It ensures a good performance of the system.
- It improves the quality of the product.
- The risks associated with the product/software are reduced and in turn the loss is also reduced.

Hence, testing is extremely important.

4.2 Types of Testing

For our project ‘Wildlife Impulse’, we have performed the following tests:

- GUI Testing
- Navigation Testing
- Functional Testing

4.3 Test Cases

Search Element

Sr. No.	Test Case	Outcome	Type of Test Result
1.	Entering keywords which are present. (e.g: “pan” to search for panda, which is present)	Only entries which have the entered keyword are displayed.	Success
2.	Entering keywords which are not present. (e.g: “spa” to search for sparrow, which is not present)	No search result displayed.	Fail

Quiz Questions Answered

Sr. No.	Test Case	Outcome	Type of Test Result
1.	Answered all 10 quiz questions.	Proceed to see result.	Success
2.	Did not answer all 10 quiz questions.	Cannot proceed to result until all questions are answered.	Fail

Submitting Answers

Sr. No.	Test Case	Outcome	Type of Test Result
1.	Clicking ‘ Yes ’ when asked : ‘Are you sure you want to submit your answers?’	Proceeds to results.	Success
2.	Clicking ‘ No ’ when asked : ‘Are you sure you want to submit your answers?’	Back to quiz questions.	Fail

5. Drawbacks and Limitations

- Our project has a limitation on videos. We don't have audio feature in it. We also have a size limitation. We couldn't provide a individual video for every animal.
- One major drawback is that we only have one category (i.e wildlife).
- Also, as seen on the site <https://kids.nationalgeographic.com/> , we don't have fun games in our system.
- Like the site <https://www.nationalgeographic.com/> , we don't have a column for 'Latest Stories'.
- We don't have a e-mail subscription policy, where you would receive the latest news and stories straight to your inbox.

6. Future Enhancement and Conclusion

Future Enhancement:-

- In the future, this project has a scope of tremendous expansion. We can provide audio along with video. We can also make the video itself have more information, as it will be more easy for the user to remember information that is in a video format, rather than reading it.
- We can create our own YouTube channel, that will have all the necessary videos uploaded on it. On site, we can embed that video under each category, since it will have a broader scope.
- One more addition that we can do, is record and store any answer that the user gets wrong, and on completion of the quiz, give more information on that particular topic.
- In the future, we wish our project can be used in schools, for educational purposes. Hence we need to add more categories (along with wildlife) in the system. Examples include, Plant Life, Space, History and many more. We hope this system will make it interesting for the students to learn all the topics.

Conclusion:-

This project satisfies the basic requirement of any good educational website. It even has an added advantage of videos. The quiz gives us an idea about how much knowledge we actually learned.

At it's current state, this project is perfect for when we want to have a quick look on the four topics (Mammals, Marine, Birds and Reptiles), while also testing our knowledge.

7. Bibliography

National Geographic:

<https://www.nationalgeographic.com/>

National Geographic Kids:

<https://kids.nationalgeographic.com/>

AngularJS:

<https://angularjs.org/>

AngularJS Tutorial:

<https://www.w3schools.com/angular/default.asp>

Documentation – Materialize:

<https://materializecss.com/>

Bootstrap:

<https://getbootstrap.com/docs/3.3/>