

ADVANCED CONTEMPORARY & EMERGING TECHNOLOGIES



EXPLORING LOW CODE, NO CODE PLATFORMS FOR APPLICATION DEVELOPMENT

Low-code is a way to design and develop software applications fast and with minimal hand-coding. It enables skilled people to deliver value more quickly and more reliably. Using visual modelling in a graphical interface to assemble and configure applications, developers skip all the infrastructure and re-implementation of patterns that can bog them down and go straight to the unique 10% of an application.

Low-code is analogous to manufacturing cars in some respects: most of what was once done by hand is now automated. The machines involved in the automation don't decide what the car looks like, but they do accelerate the assembly and delivery process.

Low-code describes a family of tools that helps developers create complete applications visually using a drag-and-drop interface. Rather than writing thousands of lines of complex code and syntax, low-code platforms allow users to build complete applications with modern user interfaces, integrations, data and logic quickly and visually.

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Here's what a typical low-code development platform looks like:

- A visual IDE: An environment for visually defining the UI, workflows, and data models of your application and, where necessary, adding hand-written code.
- Connectors to various back-ends or services: Automatically handles data structures, storage, and retrieval.
- Application lifecycle manager: Automated tools to build, debug, deploy, and maintain the application in test, staging, and production.

Low-code isn't about reducing the value of developers. Low-code lets teams of developers produce more value more quickly while drawing on their understanding of how to create and maintain high-quality web and mobile applications

5G data networks
The 5th generation of mobile internet connectivity is going to give us super-fast download and upload speeds as well as more stable connections
Quantum computing : Solving problems beyond the power of classical computing

THINGS TO KEEP IN MIND WHEN BUILDING YOUR OWN WEBSITE

Websites portray a brand in the most effective and creative way in today's internet world.

Anybody can build a website with the amount of resources available online. It could be for marketing a business, a personal website or even just a hobby. Here are six tips to help you build that perfect website.



```
isVideo = { (type = "image"), ($.href.toLowerCase().indexOf("youtube.com/watch?v=") > -1) ? true : false;
isUrl = { (type = "url") ? true : false;
isElement = { (type = "element") ? true : false;
isObject = { (typeof subject === "object") ? true : false;

// Check if boxer is already active, return true if it is
if ($("#boxer").length > 0 || (isImage || isVideo)) {
  return;
}

// Kill event
_killEvent(e);

// Cache internal data
data = $.extend({}, {
  $window: $(window),
  $body: $("body"),
  $target: $target,
  $object: $object,
  visible: false,
  resizeTimer: null,
  touchTimer: null,
  gallery: {
    active: false
  }
});
```

1. Define your purpose for the site and the target audience. Your design, navigation, and content should be driven by a purpose that aligns with your audience and their goals.

2. It's mobile-friendly or bust.

Mobile devices continue to climb year-over-year indicating that more users are searching while on the go. Plus, with Google's latest algorithm, your site must be mobile-friendly or it gets punished through lower search results.

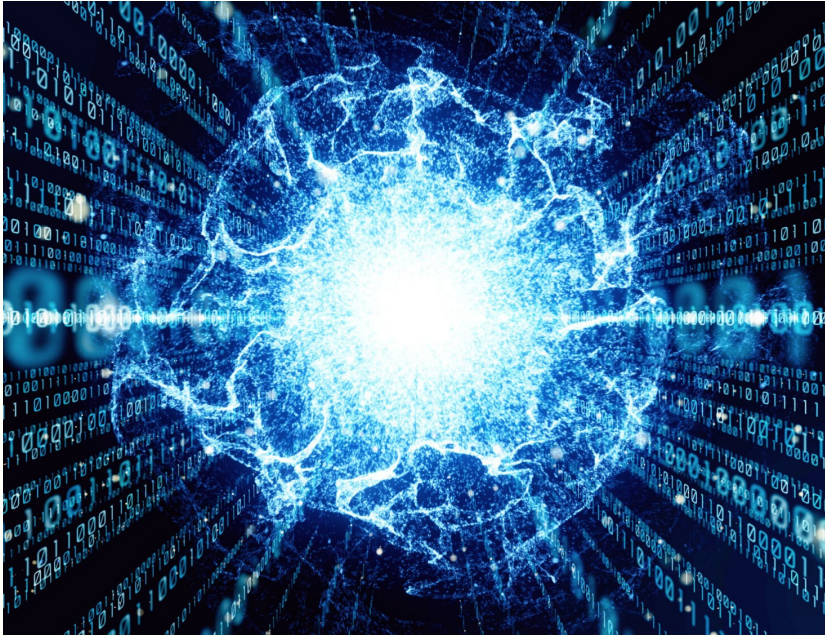
3. Snoop.

Gather secret intel on the competition's websites, websites in other industries, or even your favourite brand's websites. A few minutes of searching can inspire new directions or innovative ways to showcase tired content.

4. Most important investment: time.

The number one challenge businesses face in rebuilding a website is not devoting enough time to it to make it successful. Your investment of time should be equal to your monetary investment. It is never too early to have copy and research ready.

Artificial intelligence
A better way to search through scientific papers. Semantic Scholar, a system developed by researchers at the Allen Institute for Artificial Intelligence, in Seattle, for the purpose of ferreting out the scientific papers most relevant to a particular problem.



5. Get creative

- Don't be afraid to do something different from your competition. Your website is your face to the world. Why not stand out from the crowd with something totally different than your industry.

6. Be flexible.

- A good website is always changing. New content is added based on user feedback or fresh articles provided to encourage new conversations. Understand that designing a website isn't something you do once and forget, it is a successful ongoing process.

IS QUANTUM COMPUTING THE FUTURE OF COMPUTER SCIENCE

A quantum computer is any device for computation that makes direct use of distinctively quantum mechanical phenomena, such as superposition and entanglement, to perform operations on data.

In a classical (or conventional) computer, information is stored as bits; in a quantum computer, it is stored as qubits (quantum bits).

The basic principle of quantum computation is that the quantum properties can be used to represent and structure data, and that quantum mechanisms can be devised and built to perform operations with this data. Although quantum computing is still in its infancy, experiments have been carried out in which quantum computational operations were executed on a very small number of qubits.

One of the major areas of research and development to get the most hype in recent times is Quantum Computing – the holy grail of the computing revolution that is supposed to be the next big advancement. It is fundamentally different than classical computing and promises the technology to solve problems that are intractable with current technology. Solving these problems will have direct impact on scientific breakthroughs and the global economy..

Machine learning: Optimization in Artificial intelligence and machine learning.

Weather and Climate: QC can handle many environment variables to forecast near term weather

Personalized Medicine: Decoding DNA to prescribe drugs targeted to patients. Decoding protein structure can help identify new drugs.

Space exploration: To process enormous amount of imaginary data.

Fundamental Science: To process larger data in real world problems.

Encryption: All the current encryption protocol will be at risk with quantum computers until we create a quantum encryption.

Real time language translation: Real time translation between any two languages.