TECHNOLOGY DETAILS

|  |  |  |  |
| --- | --- | --- | --- |
|  | Client | Development | Server |
| Software | Windows or any operating system, Browser | Operating system, IDE and XAMMP | XAMMP |
| Hardware | At least 500MB RAM. | 8GB RAM | 2Gb RAM 512Mb web hosting space |

**TECHNOLOGY DETAILS**

**BOOTSTRAP-4**

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation and other interface components.

Bootstrap is the sixth-most-starred project on GitHub, with more than 135,000 stars, behind free Code Camp (almost 307,000 stars) and marginally behind Vue.js framework. According to Alexa Rank, Bootstrap getbootstrap.com is in the top-2000 in US while vuejs.org is in top-7000 in US.

**History**

Bootstrap, originally named Twitter Blueprint, was developed by Mark Otto and Jacob Thornton at [Twitter](https://en.wikipedia.org/wiki/Twitter) as a framework to encourage consistency across internal tools. Before Bootstrap, various libraries were used for interface development, which led to inconsistencies and a high maintenance burden. According to [Twitter](https://en.wikipedia.org/wiki/Twitter) developer Mark Otto:

A super small group of developers and I got together to design and build a new internal tool and saw an opportunity to do something more. Through that process, we saw ourselves build something much more substantial than another internal tool. Months later, we ended up with an early version of Bootstrap as a way to document and share common design patterns and assets within the company.

After a few months of development by a small group, many developers at Twitter began to contribute to the project as a part of Hack Week, a [hackathon](https://en.wikipedia.org/wiki/Hackathon)-style week for the Twitter development team. It was renamed from Twitter Blueprint to Bootstrap, and released as an open source project on August 19, 2011. It has continued to be maintained by Mark Otto, Jacob Thornton, and a small group of core developers, as well as a large community of contributors.

On January 31, 2012, Bootstrap 2 was released, which added built-in support for [Glypicans](https://en.wikipedia.org/w/index.php?title=Glyphicons&action=edit&redlink=1), several new components, as well as changes to many of the existing components. This version supports [responsive web design](https://en.wikipedia.org/wiki/Responsive_Web_Design). This means the layout of web pages adjusts dynamically, taking into account the characteristics of the device used (desktop, tablet, mobile phone).

The next major version, Bootstrap 3, was released on August 19, 2013. It redesigned components to use [flat design](https://en.wikipedia.org/wiki/Flat_design), and a [mobile first](https://en.wikipedia.org/wiki/Responsive_web_design#Mobile_first,_unobtrusive_JavaScript,_and_progressive_enhancement) approach.

**BOOTSTRAP 4**

Mark Otto announced Bootstrap 4 on October 29, 2014. The first alpha version of Bootstrap 4 was released on August 19, 2015. The first beta version was released on 10 August 2017. Mark suspended work on Bootstrap 3 on September 6, 2016, to free up time to work on Bootstrap 4. Bootstrap 4 was finalized on January 18, 2018.

Significant changes include:

* Major rewrite of the code
* Replacing [Less](https://en.wikipedia.org/wiki/Less_(stylesheet_language)) with [Sass](https://en.wikipedia.org/wiki/Sass_(stylesheet_language))
* Addition of Reboot, a collection of element-specific CSS changes in a single file, based on Normalize
* Dropping support for [IE8](https://en.wikipedia.org/wiki/Internet_Explorer_8), [IE9](https://en.wikipedia.org/wiki/Internet_Explorer_9), and [iOS 6](https://en.wikipedia.org/wiki/IOS_6)
* [CSS Flexible Box](https://en.wikipedia.org/wiki/CSS_Flexible_Box_Layout) support
* Adding navigation customization options
* Adding responsive spacing and sizing utilities
* Switching from the [pixels](https://en.wikipedia.org/wiki/Pixel) unit in CSS to [root ems](https://en.wikipedia.org/wiki/Root_em)
* Increasing global font size from 14px to 16px
* Dropping the panel, thumbnail, pager, and well components
* Dropping the glypicans icon font
* Huge number of utility classes
* Improved form styling, buttons, drop-down menus, media objects and image classes

Bootstrap 4 supports the latest versions of the [Google Chrome](https://en.wikipedia.org/wiki/Google_Chrome), [Firefox](https://en.wikipedia.org/wiki/Firefox), [Internet Explorer](https://en.wikipedia.org/wiki/Internet_Explorer), [Opera](https://en.wikipedia.org/wiki/Opera_(web_browser)), and [Safari](https://en.wikipedia.org/wiki/Safari_(web_browser)) (except on Windows). It additionally supports back to [IE9](https://en.wikipedia.org/wiki/Internet_Explorer_9) and the latest [Firefox](https://en.wikipedia.org/wiki/Firefox) Extended Support Release (ESR).

**PHP-7**

**PHP** is a [general-purpose programming language](https://en.wikipedia.org/wiki/General-purpose_programming_language) originally designed for [web development](https://en.wikipedia.org/wiki/Web_development). It was originally created by [Rasmus Lerdorf](https://en.wikipedia.org/wiki/Rasmus_Lerdorf) in 1994, the PHP [reference implementation](https://en.wikipedia.org/wiki/Reference_implementation) is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the [recursive initialism](https://en.wikipedia.org/wiki/Recursive_initialism) PHP: Hypertext Pre-processor.

PHP code may be executed with a [command line interface](https://en.wikipedia.org/wiki/Command-line_interface) (CLI), embedded into [HTML](https://en.wikipedia.org/wiki/HTML) code, or used in combination with various [web template systems](https://en.wikipedia.org/wiki/Web_template_system), web [content management systems](https://en.wikipedia.org/wiki/Content_management_system), and [web frameworks](https://en.wikipedia.org/wiki/Web_framework). PHP code is usually processed by a PHP [interpreter](https://en.wikipedia.org/wiki/Interpreter_(computing)) implemented as a [module](https://en.wikipedia.org/wiki/Plugin_(computing)) in a web server or as a [Common Gateway Interface](https://en.wikipedia.org/wiki/Common_Gateway_Interface) (CGI) executable. The web server outputs the results of the interpreted and executed PHP code, which may be any type of data, such as generated HTML code or binary image data. PHP can be used for many programming tasks outside of the web context, such as [standalone](https://en.wikipedia.org/wiki/Computer_software) [graphical applications](https://en.wikipedia.org/wiki/Graphical_user_interface) and robotic [drone](https://en.wikipedia.org/wiki/Unmanned_aerial_vehicle) control.

The standard PHP interpreter, powered by the [Zend Engine](https://en.wikipedia.org/wiki/Zend_Engine), is [free software](https://en.wikipedia.org/wiki/Free_software) released under the [PHP License](https://en.wikipedia.org/wiki/PHP_License). PHP has been widely ported and can be deployed on most web servers on almost every [operating system](https://en.wikipedia.org/wiki/Operating_system) and [platform](https://en.wikipedia.org/wiki/Computing_platform), free of charge.

The PHP language evolved without a written [formal specification](https://en.wikipedia.org/wiki/Formal_specification) or standard until 2014, with the original implementation acting as the [de facto](https://en.wikipedia.org/wiki/De_facto) standard which other implementations aimed to follow. Since 2014, work has gone on to create a formal PHP specification.

As of September 2019, over 60% of sites on the web using PHP are still on [discontinued/"EOLed"](https://en.wikipedia.org/wiki/End-of-life_(product)#Computing)version 5.6 or older versions prior to 7.2 are no longer officially supported by The PHP Development Team but security support is provided by third parties, such as [Debian](https://en.wikipedia.org/wiki/Debian).

HISTORY

PHP development began in 1994 when [Rasmus Lerdorf](https://en.wikipedia.org/wiki/Rasmus_Lerdorf) wrote several [Common Gateway Interface](https://en.wikipedia.org/wiki/Common_Gateway_Interface) (CGI) programs in C, which he used to maintain his [personal homepage](https://en.wikipedia.org/wiki/Personal_homepage). He extended them to work with [web forms](https://en.wikipedia.org/wiki/Web_form) and to communicate with [databases](https://en.wikipedia.org/wiki/Database), and called this implementation "Personal Home Page/Forms Interpreter" or PHP/FI.

PHP/FI could be used to build simple, [dynamic web applications](https://en.wikipedia.org/wiki/Dynamic_web_application). To accelerate [bug](https://en.wikipedia.org/wiki/Software_bug) reporting and improve the code, Lerdorf initially announced the release of PHP/FI as "Personal Home Page Tools (PHP Tools) version 1.0" on the [Usenet](https://en.wikipedia.org/wiki/Usenet) discussion group *comp.infosystems.www.authoring.cgi* on June 8, 1995. This release already had the basic functionality that PHP has today. This included [Perl-like variables](https://en.wikipedia.org/wiki/Local_variable#Local_variables_in_Perl), form handling, and the ability to embed HTML. The [syntax](https://en.wikipedia.org/wiki/Syntax) resembled that of Perl, but was simpler, more limited and less consistent.

Early PHP was not intended to be a new [programming language](https://en.wikipedia.org/wiki/Programming_language_theory), and grew organically, with Lerdorf noting in retrospect: "I don't know how to stop it, there was never any intent to write a programming language [...] I have absolutely no idea how to write a programming language, I just kept adding the next logical step on the way."A development team began to form and, after months of work and [beta](https://en.wikipedia.org/wiki/Beta_development_stage) testing, officially released PHP/FI 2 in November 1997.

The fact that PHP was not originally designed, but instead was developed organically has led to inconsistent naming of functions and inconsistent ordering of their parameters. In some cases, the function names were chosen to match the lower-level libraries which PHP was "wrapping", while in some very early versions of PHP the length of the function names was used internally as a [hash function](https://en.wikipedia.org/wiki/Hash_function), so names were chosen to improve the distribution of hash values.

### PHP 7

During 2014 and 2015, a new major PHP version was developed, which was numbered PHP 7. The numbering of this version involved some debate. While the PHP 6 Unicode experiment had never been released, several articles and book titles referenced the PHP 6 name, which might have caused confusion if a new release were to reuse the name. After a vote, the name PHP 7 was chosen.

The foundation of PHP 7 is a PHP [branch](https://en.wikipedia.org/wiki/Branching_(version_control)) that was originally dubbed *PHP next generation* (*php*). It was authored by Dmitry Stogov, Xinchen Hui and Nikita Popov, and aimed to optimize PHP performance by refactoring the Zend Engine while retaining near-complete language compatibility. As of 14 July 2014, [WordPress](https://en.wikipedia.org/wiki/WordPress)-based benchmarks, which served as the main benchmark suite for the php project, showed an almost 100% increase in performance. Changes from php are also expected to make it easier to improve performance in the future, as more compact data structures and other changes are seen as better suited for a successful migration to a [just-in-time](https://en.wikipedia.org/wiki/Just-in-time_compilation) (JIT) compiler. Because of the significant changes, the reworked Zend Engine is called *Zend Engine 3*, succeeding Zend Engine 2 used in PHP 5.

Because of major internal changes in php it must receive a new [major version](https://en.wikipedia.org/wiki/Software_versioning) number of PHP, rather than a minor PHP 5 release, according to PHP's release process. Major versions of PHP are allowed to break backward-compatibility of code and therefore PHP 7 presented an opportunity for other improvements beyond php that require backward-compatibility breaks. In particular, it involved the following changes:

* Many fatal- or recoverable-level legacy PHP error mechanisms were replaced with modern object-oriented [exceptions](https://en.wikipedia.org/wiki/Exception_(computer_science)).
* The syntax for variable dereferencing was reworked to be internally more consistent and complete, allowing the use of the operators ->, [], (),{}, and ::, with arbitrary meaningful left-side expressions.
* Support for legacy PHP 4-style constructor methods was deprecated
* The behaviour of the [foreach statement](https://en.wikipedia.org/wiki/Foreach_loop) was changed to be more predictable
* Constructors for the few classes built-in to PHP which returned null upon failure were changed to throw an exception instead, for consistency.
* Several unmaintained or deprecated [server application programming interfaces](https://en.wikipedia.org/wiki/Server_application_programming_interface) (SAPIs) and extensions were removed from the PHP core, most notably the legacy mysql extension.
* The behaviour of the list() operator was changed to remove support for strings.
* Support was removed for legacy ASP-style delimiters <% and %> and <script language="php"> ... </script>
* An oversight allowing a [switch statement](https://en.wikipedia.org/wiki/Switch_statement) to have multiple default clauses was fixed.
* Support for hexadecimal number support in some implicit conversions from strings to number types was removed.
* The [left-shift](https://en.wikipedia.org/wiki/Left-shift_operator) and [right-shift](https://en.wikipedia.org/wiki/Right-shift_operator) operators were changed to behave more consistently across platforms.
* Conversions between integers and floating point numbers were tightened and implemented more consistently across platforms.

PHP 7 also included new language features. Most notably, it introduces return type declarations for functionswhich complement the existing parameter type declarations, and support for the [scalar](https://en.wikipedia.org/wiki/Variable_(computer_science)) types (integer, float, string, and Boolean) in parameter and return type declarations.

**MYSQL 8.0**

MySQL is an [open-source](https://en.wikipedia.org/wiki/Open-source_software) [relational database management system](https://en.wikipedia.org/wiki/Relational_database_management_system) (RDBMS). Its name is a combination of "My", the name of co-founder [Michael Widenius](https://en.wikipedia.org/wiki/Michael_Widenius)'s daughter, and "[SQL](https://en.wikipedia.org/wiki/SQL)", the abbreviation for [Structured Query Language](https://en.wikipedia.org/wiki/Structured_Query_Language).

MySQL is [free and open-source software](https://en.wikipedia.org/wiki/Free_and_open-source_software) under the terms of the [GNU General Public License](https://en.wikipedia.org/wiki/GNU_General_Public_License), and is also available under a variety of [proprietary](https://en.wikipedia.org/wiki/Proprietary_software) licenses. MySQL was owned and sponsored by the [Swedish](https://en.wikipedia.org/wiki/Sweden) company [MySQL AB](https://en.wikipedia.org/wiki/MySQL_AB), which was bought by [Sun Microsystems](https://en.wikipedia.org/wiki/Sun_Microsystems) (now [Oracle Corporation](https://en.wikipedia.org/wiki/Oracle_Corporation)). In 2010, when Oracle acquired Sun, Widenius [forked](https://en.wikipedia.org/wiki/Fork_(software_development)) the [open-source](https://en.wikipedia.org/wiki/Open-source) MySQL project to create [MariaDB](https://en.wikipedia.org/wiki/MariaDB).

MySQL is a component of the [LAMP](https://en.wikipedia.org/wiki/LAMP_(software_bundle)) [web application](https://en.wikipedia.org/wiki/Web_application) [software stack](https://en.wikipedia.org/wiki/Software_stack) (and [others](https://en.wikipedia.org/wiki/List_of_AMP_packages)), which is an acronym for [Linux](https://en.wikipedia.org/wiki/Linux), [Apache](https://en.wikipedia.org/wiki/Apache_HTTP_Server), MySQL, [Perl](https://en.wikipedia.org/wiki/Perl)/[PHP](https://en.wikipedia.org/wiki/PHP)/[Python](https://en.wikipedia.org/wiki/Python_(programming_language)). MySQL is used by many database-driven web applications, including [Drupal](https://en.wikipedia.org/wiki/Drupal), [Joomla](https://en.wikipedia.org/wiki/Joomla), php, and [WordPress](https://en.wikipedia.org/wiki/WordPress). MySQL is also used by many popular [websites](https://en.wikipedia.org/wiki/Website), including [Facebook](https://en.wikipedia.org/wiki/Facebook), [Flickr](https://en.wikipedia.org/wiki/Flickr), [MediaWiki](https://en.wikipedia.org/wiki/MediaWiki" \o "MediaWiki), [Twitter](https://en.wikipedia.org/wiki/Twitter) and [YouTube](https://en.wikipedia.org/wiki/YouTube).

**HISTORY**

MySQL was created by a Swedish company, [MySQL AB](https://en.wikipedia.org/wiki/MySQL_AB), founded by [David Axmark](https://en.wikipedia.org/wiki/David_Axmark), Allan Larsson and [Michael "Monty" Widenius](https://en.wikipedia.org/wiki/Michael_(Monty)_Widenius). Original development of MySQL by Widenius and Axmark began in 1994.The first version of MySQL appeared on 23 May 1995. It was initially created for personal usage from [mSQL](https://en.wikipedia.org/wiki/MSQL" \o "MSQL) based on the low-level language [ISAM](https://en.wikipedia.org/wiki/ISAM), which the creators considered too slow and inflexible. They created a new [SQL](https://en.wikipedia.org/wiki/Structured_Query_Language) interface, while keeping the same [API](https://en.wikipedia.org/wiki/Application_programming_interface) as mSQL. By keeping the API consistent with the mSQL system, many developers were able to use MySQL instead of the (proprietarily licensed) mSQL antecedent.

### Milestones

Additional milestones in MySQL development included:

* First internal release on 23 May 1995
* Version 3.19: End of 1996, from www.tcx.se
* Version 3.20: January 1997
* Windows version was released on 8 January 1998 for Windows 95 and NT
* Version 3.21: production release 1998, from www.mysql.com
* Version 3.22: alpha, beta from 1998
* Version 3.23: beta from June 2000, production release 22 January 2001
* Version 4.0: beta from August 2002, production release March 2003 ([unions](https://en.wikipedia.org/wiki/Set_operations_(SQL))).
* Version 4.01: beta from August 2003, Jyoti adopts MySQL for database tracking
* Version 4.1: beta from June 2004, production release October 2004 ([R-trees](https://en.wikipedia.org/wiki/R-tree) and [B-trees](https://en.wikipedia.org/wiki/B-tree), subqueries, prepared statements).
* Version 5.0: beta from March 2005, production release October 2005 (cursors, stored procedures, triggers, views, [XA transactions](https://en.wikipedia.org/wiki/Database_transaction)).

The developer of the Federated Storage Engine states that "The Federated Storage Engine is a [proof-of-concept](https://en.wikipedia.org/wiki/Proof_of_concept) storage engine", but the main distributions of MySQL version 5.0 included it and turned it on by default. Documentation of some of the short-comings appears in "MySQL Federated Tables: The Missing Manual".

* [Sun Microsystems](https://en.wikipedia.org/wiki/Sun_Microsystems) acquired MySQL AB in 2008.
* Version 5.1: production release 27 November 2008 (event scheduler, [partitioning](https://en.wikipedia.org/wiki/Partition_(database)), plugin API, row-based replication, [server log](https://en.wikipedia.org/wiki/Server_log) tables)

Version 5.1 contained 20 known crashing and wrong result bugs in addition to the 35 present in version 5.0 *(almost all fixed as of release 5.1.51)*.

MySQL 5.1 and 6.0-alpha showed poor performance when used for [data warehousing](https://en.wikipedia.org/wiki/Data_warehousing) – partly due to its inability to utilize multiple CPU cores for processing a single query.

* Oracle acquired Sun Microsystems on 27 January 2010.
* The day Oracle announced the purchase of Sun, Michael "Monty" Widenius forked MySQL, launching [MariaDB](https://en.wikipedia.org/wiki/MariaDB), and took a swath of MySQL developers with him. MySQL Server 5.5 was generally available (as of December 2010). Enhancements and features include:
  + The default storage engine is [InnoDB](https://en.wikipedia.org/wiki/InnoDB" \o "InnoDB), which supports transactions and referential integrity constraints.
  + Improved InnoDB I/O subsystem.
  + Improved [SMP](https://en.wikipedia.org/wiki/Symmetric_multiprocessing) support.
  + Semi-synchronous replication.
  + SIGNAL and RESIGNAL statement in compliance with the SQL standard.
  + Support for supplementary Unicode character sets utf16, utf32, and utf8mb4.
  + New options for user-defined partitioning.
* MySQL Server 6.0.11-alpha was announced on 22 May 2009 as the last release of the 6.0 line. Future MySQL Server development uses a New Release Model. Features developed for 6.0 are being incorporated into future releases.
* The general availability of MySQL 5.6 was announced in February 2013.New features included performance improvements to the [query optimizer](https://en.wikipedia.org/wiki/Query_optimizer), higher transactional throughput in InnoDB, new [NoSQL](https://en.wikipedia.org/wiki/NoSQL)-style memcached APIs, improvements to partitioning for querying and managing very large tables, TIMESTAMP column type that correctly stores milliseconds, improvements to replication, and better performance monitoring by expanding the data available through the PERFORMANCE\_SCHEMA. The InnoDB storage engine also included support for full-text search and improved group commit performance.
* The general availability of MySQL 5.7 was announced in October 2015. As of MySQL 5.7.8, August 2015, MySQL supports a native [JSON](https://en.wikipedia.org/wiki/JSON) data type defined by [RFC 7159](https://en.wikipedia.org/w/index.php?title=RFC_7159&action=edit&redlink=1).
* MySQL Server 8.0 was announced in April 2018, including NoSQL Document Store, atomic and crash safe DDL sentences and [JSON](https://en.wikipedia.org/wiki/JSON) Extended syntax, new functions, such as JSON table functions, improved sorting, and partial updates. Previous MySQL Server 8.0.0-dmr (Milestone Release) was announced 12 September 2016.
* MySQL was declared DBMS of the year 2019 from the [DB-Engines ranking](https://en.wikipedia.org/wiki/DB-Engines_ranking).

IMPLEMENTATION

|  |  |
| --- | --- |
| TIMELINE | RESPONSIBILITY |
| 10-01-2020 to 13-01-2020 | Information Gathering |
| 15-01-2020 to 20-01-2020 | Planning and Flow Control |
| 24-01-2020 to 03-02-2020 | Documentation |
| 08-02-2020 to 11-02-2020 | Database Designing |
| 12-02-2020 to 17-02-2020 | Form Designing |
| 18-02-2020 to 29-02-2020 | Coding & Validation |
| 01-03-2020 to 04-03-2020 | Database Connectivity |
| 05-03-2020 to 08-03-2020 | Reviewing and Analysis of Project |

CONCLUSION/SUMMARY

* This system will be able to provide the facility of ordering the dairy products online.
* The customer will be able to search and select multiple products and add it to the cart and bill will be generated automatically.
* The shopkeeper will be able to sell their products online and earn more profit.
* Customer have to just order the products and the product will be delivered at the address.
* Cash on Delivery facility will be available.

URL (DOMAIN NAME OF WEBSITE)

www.shravandairy.xyz

DETAILS OF TEAM MEMBERS & THEIR RESPONSIBILITES IN DETAILED

|  |  |
| --- | --- |
| Team Member | Responsibility |
| Sayali Burte | Information Gathering |
| Sayali Burte, Sanket Khardekar | Planning and Flow Control |
| Sayali Burte, Sanket Khardekar | Documentation |
| Sanket Khardekar | Database Designing |
| Sayali Burte | Form Designing |
| Sayali Burte, Sanket Khardekar | Coding & Validation |
| Sayali Burte, Sanket Khardekar | Database Connectivity |
| Sayali Burte, Sanket Khardekar | Reviewing and Analysis of Project |