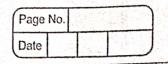
Nome 1- Raghar Mundhara 1 - Chiss: - D15 B - Roll No: -41 Assignment - 2. And Appropriate For QI) Define Progressive Web App (PWA) 2 explain its significance in modern web development. Discuss the Key characteristic that differentiate DWAS from traditional mobile app. > a) PWA is a type of web app that utilizes modern met capabilities to provide a mer experience similar to that of native mabile, apps. b) PWAs are designed to be reliable, fast & engaging of user's networks condition or device - capabilities. + of no oil will as not refine of T. A. c) They are about using standard web technologies like HTML, csc & Java Script but offers features traditionally associated with native apps, such las offline functionally push notifications & access to device hardware was & d key characteristics that differentiates PWAS from traditional mobile apps: D Cross Platform Compatibility: - PWAs can ran on any device with a compatible web browser, whereas traditional nobile apps are typically developed separately for different platforms. 2) Installations: PWAS can be directly installed from the browser into wer's device, whereas traditional mobile apps require installation from app store. 3) Updates - PWAS are updated automatically ensuring users always have access to latest version without regaring manual updates.

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Date
2) Define responsive web design & explain its importance 2) Define responsive web design & contrast responsi
2) Define responsive web design a exprise responsi- in the context of PWA. Compare & contrast responsi-
in the context of
Phild & adaptive wer assign
- 1 1 0 - 2 - cive web design
that aims to create websites that proper of der Viewing experiencing across a wide ranger of der Screen sizes. achieved by designing & coding websites Achieved by designing & designing designi
Viewing experiencing 2 screen sizes bi This is achieved by designing & coding web to the weeks design de to the weeks design de to the weeks design de
6) This is achieved to the wer's the the
2. screen sizes. 13 This is achieved by designing & country de to This is achieved by designing & designing de to the user's designing that the to respond & adopt to the user's designing that the to respond & viewport size, ensuring that the provide & viewport size dynamically to provide & designing & desig
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1 La Savite
Al Response
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contributing to seamless UX. Contributing to Seamless UX. Contributing to Seamless UX.
contributing to seamless UX. contributing to seamless UX. e) Fluid web Designs use percentages rather than claid designs use percentages rather delements callowing
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to adopt dynamically as view forts fluidy to by It enables layouts to adjust thirt exp Screen 31305 + ensuring a consistent exp
to adopt dynamical to adjust exp
b) It enables they a constant
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to adapt dynamically to adjust thereto exp. b) It enables layout to adjust thereto exp. soreen sizes, ensuring a consistent exp. across devices.
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across devices.

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P	Adaptive web design: - mostledant et
	a) Adaptive designs have predefined layouts targeted at
	different screen sizes, offering tailored experiences
	optinized for specific devices orit vibreakpoints.
	D' Comparis While adaptive design i provides tuilored
	experiences for specific devices it requires creating
,	& maintaining multiple layouts, which can be
	more complex & resource- intensive compared to
9	responsive designation and later
1	- watergy leader all Him Hillight agrees
2 6	escribe the lifecycle of Service Workers, including
. 1	egistration installation & activation phases
<u>a</u> -	The life cycle of service worker, a key component of
	WAs responsible for Handling network requests &
	caching resources, involves three main phases: registation.
	installation: & activation =
2	a) Registration:
	The service worker is first registered within the
e	- scope of web application. This + typically occurs in the
i	main Js file of application
	2 It is done wing initiated using the
	!navigator-serviceWorker-register()' method.
ji	3) The browsels then aftempts to fetch & parse the
	service worker script.
	DInstallation:- DIf the service vorker script is successfully fetched
道。	IT the Service Correct proceeds with the
	installation phase: 2) During installation, the install event handler to 2) During installation, the sinstall event handler to
	2) During installation, Mc Institute HTML, CSS, Js files cache static assets, such as HTML, CSS, Js files
	Cache state more

3) once the installation process is complete the worker becomes installed but not tyet active 2 Backinstien 1-J. After installation the service worker genter activition physe I I I activition Developers scare thiclade logic win the la event handler to perform trusks like cleaning authored caches, ensuring the services worker's compatibility with the latest version of web app. with the shoot of 3) Once the tactivation process is complete, the service worker becomes active & tegins IT con the payes in withinanity rescared remover .1. ay Explin the use of Indeped BB In the service worker for data storage. > D. Indexelob is a low-level pasynchronous API storing. & retrieving large amount of struct
data in the browser, making it an ideal
choice for data storage withing a service work DService worker often tilize Indexed DB to ca Juproving performance & enhancing overall user experience 3 Indeped OB allows Service Workers to storage resources from third party domains & integ with external APIs while maintaining data isolation & security



DIt operates asynchronously, which is well-swited
by the non-blocking nature of service workers.
for the non-blocking nature of service workers. Async operations prevent the service worker from
blacking the main thread encuring smooth performance
blocking the main thread, ensuring smooth performance & responsiveness of the web application.
of a charity det in Thomas AB service Workers
e) By storing data in IndexelDB, service workers can serve chacked content to wers even when
U DOLL
Mey are offline