DN: DISB POIL NO : 55 (J) PWA Assignment Define progrossive web app (PWA) and explain its Significance in modern web development. Discuss the Jeen characteristics that differentiate ANA from draditional mobile apps and has historia after the Ans PWA is a type of web app that whiles and modern web capibilities to deliver an app like experience to users. It combines the best features of the web app and mobile app to other others brutionality push notifications and installation on andences the streth new much dis exercised to bythe is every light has entire whom 1) Response: PWAs are designed to work a complexity across various devices and screen sizes adapting to were dence " read 2) Connectivity: They can work offline as with a poor internet connection lavoraging service worker to adhe resource and provide functionality. App like experience: AWAs, mimic the look and 3) feel of native mobile apps offering smooth animations Discoverable: PWAs can be hound through search engines and don't require installation from an store Server: PWAs are served over HTTPs to ensure dala privacy and security. 192 Define responsive web design and explain its importance In the context of progressive web app. Compare responsive fluid and adaptive web design approach FOR EDUCATIONAL USE Sundaram

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Λ	Responsive web design is an approach to designing website
1903	that arouse they adapt and respond appropriately
	to various server sizes orientation and devices
	To various Server Sizes Origination is
-	In the context of PWA, responsive useb design is
1	Crucial because it ensures that the apps interface
SA)	remains user triendly and tonethoral across straters
7.4	devices
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1)	Responence useb design: User Herible ands & ayout
	CSS media gueries and Aurd images to adapt the website
-	design to different server sizes and orientations
21	Fluid web design: Similar to responsive design fluid web
- 5	design also utilizes flexible byout and percentage
	for sizing dements but it may not more savily
	incorporate media queries to adjust the design based
140-06	on specific breakpoints
^	Responsere meto design our be more africiant in terms
3_)	Kesponsine web design by those execution in this
the same	Of be without to still source in source interiffering con
- N	do all devices.
- 1	Adaptive web design may involve different MTML& (SS
34	files based on denice which can result in moreased seven
	Load and slower page load times.
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	Competition to
Ang	registration and activation process worker including app through pure script code in the main page This
	Registration: Contration achieve includes
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12 Mula	Carolina Sund registered by
Sul	app through parason process including app through parason of code in the main page. This specifying the peth to the service varies and molies. Installation: Once Tearly I have the service varies script
100	The army the and occurs in the barbar tage This
t who are	to the service and molies
3)	Instally from: O
	The la the
Sun	the service worker in a down and and
	Installation: Once registered the browser downloads and installation. The service worker script Drive installation resources needed for My Static assets and
	resources needed for Mind static assets and "
	The service worker script Drowser drownloads and resources needed for offline bunchionality. Activation: After a life of the station assets and other
3)	Activation: After installation the service worker centers worker content contents
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	the activation phase Doing activation the service worker centers worker can clear up ald caches initialize recessary activated the service
	date clear up old carpor the service
	data and Start intercepting network requests Once
Eg.	Outhor the service worker a requests Once
	CIDIO CIAL MONTOUS ASSOCIA
6	managing cache storage handling tetch events and
	String!
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(Sundaram)	
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By Explain the use of indexed DB in the service worker for data storage.
Indexed DB is a Client-side storage mechanism that Ans. allows service workers to store strictured data locally within the browser. It enables web apps, including those utilizing service worker to stone and retrieve data effectively providing offline functionality and enhancing performance, by reducing the need for constant network requests Indexed DB is particularly useful in Sorvice uporteons for tasks such as conching dynamic Content managing user preferences and supporting

Sundaram